# Rationale of Nation Building via Skill Development of Indian Farmers

## **Case Studies**

VOL-2

## Patanjali Farmer Samridhi Programme

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### **Foreward**

The Patanjali Farmer Samridhi Program (PFSP) is being implemented by the Patanjali Bio Research Institute since 1st September 2018 with association of National Skill Development Corporation (NSDC) and Agricultural Skill Council of India (ASCI) for imparting training for the job role of Organic Grower and Group Farming Practitioner. The PSFP has successfully completed the training on organic grower of over 42 thousand farmers from various states of India and its journey is marked by both achievements and challenges faced during the programme implementation. The PSFP has experimented various agricultural practices and provided a strong commitment on Organic Agriculture focusing on Farmers' Welfare.

This publication is a compilation of case studies of various districts from across the country in which they experimented with Organic Agriculture and Chemical free farming in their own fields under the programme. The select cases provide insights for the improvement of income of small and marginal farmers by adopting organic farming practices. The approach adopted by Patanjali to conduct the training and farm experiments in the farmers field under the Farmer to Farmer led extension model also energized and motivated not only the farmers but also the nearby farmers who were able to see the changes during the crop cycle.

I am sure that the case studies provide proof of concept for analyzing the cost and benefits from organic farming through reduction of input costs and improved marketing practices being followed by the farmers. This will help to create a strong motivation on organic farming and contribute to the improvement and doubling of farmers' income in various states. I also complement the project team for working in the field and in documenting the cases meticulously.

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#### **Overview on the Case Studies**

#### 1. Sri Vasireddy Srinivas Prasad, Guntur District, Andhra Pradesh

Sri Vasireddy Srinivasa Prasad is actively practicing the organic farming with interest and zeal in his land. He is cultivating paddy by applying compost, Tricoderma, PSB, KMB, Patanjali Poshak, PROM and Neem cake. He also motivates the farmers towards organic farming with huge enthusiasm and giving training through PFSP to the farmers on organic cultivation practices, profits gaining methods, and health advances by consuming organic produce. Some of them are motivated and showing interest for the cultivation of farm produce through organic method learnt from Sri. V.S. Prasad from the next season onwards and want to become part of healthy people, healthy village, healthy India.

#### 2. Sri. Veldhi Pavan Kumar, West Godavari District, Andhra Pradesh

Sri V. Pavan Kumar is young (28 years) software professional and resigned his job by inspired a call from PP Ramdev Baba ji on organic farming. He started comparing the hazards effect on human health in foods due to excessive chemical fertilizers and indiscriminate use of pesticides. In 2017 he established Gosala and started preparing Jeevamrutham & Ghanjeevamrutha, Pancha Gavya and started using in his own 3-Acres land which belongs to his family and started demonstrating to the farmers in his village and also participating in the A.P. govt. Schemes on Organic Agriculture. As a trainer farmer he has trained 185 qualified farmers, 23 in his own village, 85 in West Godavari District and 77 in Guntur district for the job role of Organic Growers.

#### 3. Sri Kongara Kishore, East Godavari District, Andhra Pradesh

Sri. K. Kishore is graduated in commerce and working in a private organization in Hyderabad. On the inspiration and encouragement from PBRI, he has been touring frequently on his own, to his native village (Gandepally) in East Godavari, which is very far away from Hyderabad. He was gathering youth and elderly likeminded farmers and teaching them the necessity of age old traditional Organic Farming practices where their forefathers educated, lived with sound health and hale long lives. Even though the yields are recorded low in Organic Sugarcane plot when compared with controlled plot, he has extracted the Sugarcane juice and cooked into Organic Jaggery making blocks from 1 Kg. to 10 Kg., packed and marketing at Hyderabad with value added price of Rs. 100 to Rs. 110/- per Kg. and making good profits. Moreover, he has adopted & guiding the local farmers towards the Organic cultivation practices thus, finding out profitable and niche marketing areas in the cities of Andhra Pradesh and Telangana states.

#### 4. Sri. Arun Kumar Roy, Dhubri District, Assam

Sri Arun Kumar Roy is a small farmer with one acre land. He attended the 10 days training programme on Organic Grower organized by PBRI and He conducted the training programme for the job role Organic Grower for 97 farmers in two batches in his village. He started organic farming in Kharif 2017 growing

mainly rice and vegetables by organic methods. He has also motivated the other farmers of his village to go organic. Sri Roy was also honoured by KVK, Dhubri on his dedication in growing organic soybean.

#### 5. Bhola Nath Sarma, Dhubri District, Assam

Sri Bhola Nath Sarma has about 2 Acre land and attended the 10 days training programme on Organic Grower, organized by PBRI. After that he started the organic farming on rice & vegetables crop and also conducting the training programme on Organic Grower for 99 farmers locality. He has also motivated the other farmers of his village to grow chemical free crop. He also started growing strawberry, mushrooms and vegetables organically. He has a desi cow, a small unit of green house, a vermi-composting unit, FYM unit etc along with a small medicinal garden. It was observed that Rs 800 were spent in pest and disease control because there was minimum incidence of pest and disease as the crop was grown organically. On the basis of his experience, he expressed that the organic farming reduces the cost of fertiliser and pesticides, though labour cost is high, it maintains soil health, improves the soil structure and grain quality is good as compared to inorganically grown crop. He has also mentioned that grain yield of the crop was reduced slightly in case of organically grown crop. He could earn Rs. 20,688/acre as a profit from rice only.

#### 6. Sri Bikash Das, Biswanath District, Assam

Sri. Nikash Das, has 5 acres of land in his village and started organic farming in Kharif 2016. Mainly he cultivates the paddy in Kharif and vegetable crops in Rabi season. He attended the 10 days training programme of Organic Grower organized by PBRI. Subsequently, he conducted the training programme on Organic Grower for 50 farmers in his village. He had his own compost and vermicompost units and he has also motivated the other farmers of his village to grow chemical free crop. He minimised expenditure for controlling diseases and pests by using organic practices. He could earn good profits from his organic products of rice only.

#### 7. Sri Sunirmal Roy, Cachar District, Assam

Sri Sunirmal Roy has 2 acre of land in his village. He attended the 10 days training programme on Organic Grower organized by PBRI. After that he started the Organic Farming in his land, initially rice in Kharif and vegetable crops in Rabi season. He also conducted the RPL training programme for farmers in his village. Sri Roy possesses a green house, a good horticulture garden, a well managed agriculture farm, three fisheries and a dairy unit with 6 cows. According to him his income was enhanced due to low production costs and selling of good quality organic products. He could analyse the soil test results, could control insect-pests by using cattle dung/ cow urine/ neem kernel extracts etc. His example is followed by many in the locality as people are convinced and encouraged with his techniques of production.

#### 8. Sri Akhilesh Kumar, Vaishali District of Bihar

Shri. Akhilesh Kumar is an active farmer from Mathnahamal Village, Vaishali district of Bihar and has 12 acre own irrigated land. The crops grown by him in Kharif season is paddy, Bajra, wheat and Rabi

season crops are wheat, potato, pulses, mustard, onion & vegetables. After participating in the training of trainer program on Organic Grower organized by PBRI. He is able to prepare organic manure and is familiar with natural plant protection methods. He motivates and trains the farmers of nearby villages, he grows the chemical free onions in his 5000 sqm. farm and harvested a total of 1000 kg onion. He sold them at vaishali sabji mandi and Muzaffarpur at Rs 45 per kg., earlier he was selling the same onions at Rs. 40 Rs per kg. He uses panchagavya in field twice. 1st dosec of panchgavya was done 15 days after transplanting and 2nd dose of panchagavya was applied after 45 days of transplanting . After the use of panchgavya he noticed that the plant growth is good and plants are in healthy condition.

#### 9. Shri Bindeshwari Tiwari, Bhojpur district, Bihar

Shri. Bindeshwari is a progressive farmer from Daridih Village, Bhojpur district of Bihar. He has 10 acre of own irrigated land. In one acre, he cultivated menthe and in the remaining land he grows paddy, bajra, wheat in Kharif season. The Rabi season crops are wheat, potato, pulses and mustard. He has a half acre Mango orchard. He participated in the training of trainer program for organic growers organized by PBRI. He conducted the training for farmers on organic grower in his village. Along with this he inspired people to take up organic farming and started organic cultivation of mentha in his own land.

#### 10. Shri Khemchand, Palwal District, Haryana

Shri. Khemchand is an active farmer with 3 acres land and has taken training on Orgnic Grower imparted by PBRI under PFSP. After training he started organic farming of various vegetable crops like – Palak, methi, radish, brinjal, carrot and mustard. He is applying various organic manure preparations like – Jeevamrut, Panchagavya, FYM and bio control of insects and disease in vegetable crops. He has gained huge profits by direct marketing as premium organic products in various residential societies of Faridabad and New Delhi.

#### 11. Shri. Mehar Singh, Ambala District, Haryana

Shri Mehar Singh from Village Kanjala of Naraingarh Tehsil has about 8 acres of irrigated land. After attending the ten days training programme of organic grower organized by PBRI, he started organic farming and mainly cultivating paddy in Kharif and wheat crop in Rabi season. He has also motivated the other farmers of his village to grow chemical free crop. He is preparing the decomposer for decomposing the rice straw of his field.

#### 12. Shri. Virender Singh, Sirmour District, Himachal Pradesh

Virender Singh is from Lanakasar Village of Pachhad Tehsil. He was trained as an organic grower by the PBRI under the project Patanjali Farmers Samridhi Programme. This practical oriented training has provided the technical knowledge, skill and practical insight to the system of organic growing. These farmers are now well versed in the methodology involved in converting the ordinary stuff to organic fertilizers like jeev amrut, compost making, vermi compost, vermi-wash and other bio-fertilizers. All these farmers are practicing the organic farming very effectively and gaining good profits and leading healthy life.

#### 13. Shri Rajendra Prasad Mahto, Ranchi District, Jharkhand

Rajendra Prasad Mahto resident of Satpalu, Silli, Muri, Ranchi District of Jharkhand has just 2 acre of land. He grows paddy in Kharif season and wheat in the Rabi season as main crops. Simultaneously, he also motivates the other farmers to grow through chemical free methods. He harvested a total grain yield of 22.54 qt, which he sold at Ranchi mandi @Rs 1800 per qt.

#### 14. Shri. Shivshankar Yadav, Deoghar District, Jharkhand

Shri Shivshankar Yadav S/o Kolho Yadav from Kenmankathi, Jasidih has 1.5 acres of irrigated land. He started organic farming in Kharif 2019 and grows mainly paddy in Kharif and wheat crop in Rabi season. He motivated the other farmers of his village to go for chemical free farming and he is also much familiar in preparing the jiwaamrit which he uses in his fields.

#### 15. Shri. Basavanni B Nelajgi , Belgaum District, Karnataka

Basavanni B Nelagji, worked as a Agriculture Officer in Karnataka State, Department of Agriculture for 35 years and after retirement he started farming in his own 8 acre land. He realized that water used in paddy cultivation led to decline in ground water table of his village and surroundings. He also realized the hazards of using excessive chemical fertilizers and indiscriminate use of pesticides on human health. He started Paddy cultivation in 1 – acre under pure Organic farming methods and also cultivated another acre of Paddy under chemical fertilizers for comparison. As per the farm lab and control plot data, the yields are more in organic cultivation (2nd year crop) when compared to the inorganic controlled plot. The expenditure towards inorganic fertilizer and pest control chemicals is very high while, the market rates of product are very low i.e. Rs. 2100/- per 75 kg bag at field level. In the inorganic paddy field the production was low (14 Quintals) when compared to the organic control plot (18 Quintals). The organic plot pest-diseases incidence was also very low. In addition, the cost of cultivation in inorganic agriculture was high (Rs. 36650/-) when compared to the organic plot (Rs. 32010/-).

#### 16. Shri. Gangadhar Patil, Belgaum District, Karnataka

Shri Gangadhar was a graduated in Bachelor of Arts, after studies he started farming, he grows Mango, paddy and some Vegetables for his livelihood in his 6 acre land. He has cows, bullocks and started preparing Jeevamrutham, Pancha Gavya, vermicompost, FYM. He started using in his own farm and started demonstrating to the farmers in his village. The expenditure towards inorganic fertilizer and pest control chemicals is very high while, the market rates of product are very low i.e. Rs.2100/- per 75 kg bag at field level. In the inorganic paddy field the production was low (14 Quintals) when compared to the organic control plot (18 Quintals). The organic plot pest-diseases incidence was also very low. In addition, the cost of cultivation in inorganic agriculture was high (Rs. 36650/-) when compared to the organic plot (Rs. 32010/-).

#### 17. Shri. Khushal Thawkar, Nagpur District, Maharashtra.

Shri. Khushal Vishnuji Thawkar resident of Village Kinhi, has 1 acre of land and the main crops grown by him in Kharif season are Rice, Soyabean. In Rabi he grows cotton. He initiated growing of chemical free Rice in his farm in 1 Acre land. The marketing of the produce was done by using small bags of 25 kg of the produce as Organic (chemical free) and as a result the price realization was higher by approximately Rs.20 per kg and the demand of organic produce was more but the production was less.

#### 18. Shri. Sharad Lambe, District Chandrapur, Maharashtra

Shri. Sharad Baburao Lambe from Village Mangli in Chandrapur district has 3 acres of rainfed land. Mainly he grows Soya bean in Kharif season and Cotton in the Rabi season. He initiated growing of Organic (chemical free) Soya bean from the month of June 2019 and the expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni. Due to uniform seed size and shining of seed coat, the rates in the market for organic Soyabean were more approximately by Rs.5 per kg. The middleman at Bhadrawati said that the organic produce will have better quality of oils and proteins.

#### 19. Shri. Vinod Mohod, Nagpur District, Maharashtra

Shri. Vinod Shantaram Mohod is a resident of Mouda Village having 5 acres of irigated land. The main crops in Kharif season are Cotton and Soyabean in the Rabi season. He initiated growing of Cotton by organic farming. Since, the cotton produced through organic farming was shining white, the price given to it was approximately more by Rs.5.50 per kg. The middleman at Nagpurmandi said that it was good due to more percentage of fibers than that of chemically grown cotton.

#### 20. Shri. Prabhakar Deotale, Wardha District, Maharashtra

Shri. Prabhakarrao Deotale, from village Nandora, Sewagram, has 1.5 ha. land and practices traditional organic farming from last five years for growing various vegetables. He learnt various techniques of organic farming like the use of straight varieties instead of hybrids, preparations of vermi-compost, vermi-vash, cow dung slurry, beejamrut and jeevamrut. Looking towards the more demand of brinjals during rainy season particularly in this area through his earlier experience he grew it. The marketing of the produce was done only twice in a week at sewagram among the staff of medical & engineering colleges. Since the produce was organic the price realization was higher by approximately Rs.10 per kg. The demand of organic produce was more but production was less.

#### 21. Shri. Ajay Kumar Sahare, Teh-berghat district, Madhya Pradesh

Shri. Ajay Kumar Sahare is a progressive farmer from village Daudivada, practicing the organic farming since 2003. The expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni and he also started making compost, panchgavya and dashparni at home. The marketing of the produce was done

by using jute bags and labelling as chemical free produce. As a result the price realization was higher by approximately Rs.32 per kg & than the chemically treated paddy which fetched Rs.25 per kg.

#### 22. Shri. Muralidhar Pardhi, Balaghat District, Madhya Pradesh

Shri. Shailesh Pardhi is a progressive farmer from Khairlanji village, Mohgaon tehsil. He currently implemented the crop cycle in his field with natural farming practices. So that he can get more profit by selling his crops with good price. He is able to sell his agricultural produce in inter-state / adjoining districts as a result the price realization was higher by approximately Rs.40 per kg. He has made a good profit in this Rabi season at a low cost by doing organic farming.

#### 23. Shri. Ram Krishna Raghuwanshi, Hoshangabad district, Madhya Pradesh

A progressive farmer Shri. Ram Krishna Raghuwanshi has started Organic Moringa cultivation, which gives more money than other crops with minimum time. This crop has less damage probability during the adverse condition of the climate. Patanjali provides a very good market link to him. He sells his agricultural produces inter-state/adjoining states. He has earned 2 lakh in 2 months.

#### 24. Shri. Amit Kumar, Malwa, Punjab

His place is reeling under the excessive use of pesticides, fungicides, weedicides and chemical fertilizers at a very high and alarming rate than the recommended doses. Although, he was cultivating the best varieties of basmati rice and wheat organically for past 8 years but his enrichments through organic farming training programme has resulted in tremendous popularity. He has gained expertise in preparing his own organic products like jeevamrut, panchgavya, vermi compost etc. which has benefited the chak panniwala village to a large extent. The total earning of basmati crop from 1 acre was approx. Rs. 3,100/quintal in 2017 but after applying the Patanjali PROM, Patanjali Khad, jeevamrut and panchgavya the results were extremely pleasing which helped him to sell out the same variety of Basmati crop at Rs. 6,500/quintal in 2018.

#### 25. Shri. Hansraj Meena, Jhalawar District, Rajasthan

Shri. Hansraj Meena is a progressive farmer from a village Parpati, he has 5 acres of land with irrigation facility by well. The major crops grown by him in Kharif season are soyabean, maize, acid-lime, mandarine. In Rabi season he grows red gram, wheat, tomato, bengal gram, onion, and chilli. He is practicing organic cultivation of lime and gets 500 kg yield/annum. His sells around 450kg lime at Rs. 80/kg in the open market and remaining 50 kg he uses for pickle making. He uses only compost, vermicompost and jivaamrut for nutrients and for insecticide he is use devdooth, bhramastra and dashparni.

#### 26. Shri. K Mahalingam Nalgonda District, Telangana

Shri. K. Mahalingam a progressive farmer from Shivaneni gudem, Chityala and he cultivates mainly paddy. He started growing paddy crop chemical free with organic method and he has also motivated the other farmers of his village to grow chemical free crop. His income has increase due to lowering the production

costs and selling of good quality organic products. The cost of medicines in his family was also reduced and he has gained popularity for his profession. In addition, the cost of cultivation in inorganic agriculture as recorded high (Rs. 38350/-) when compared to the organic plot (Rs. 33100/-).

#### 27. Shri. Diwan Singh, Nanital district, Uttarakhand

Shri. Diwan Singh Bisht is an active farmer from village-Majheda & has 2.5 acre of land which is half irrigated and half rain fed. The crops grown his area are mandua, french bean, horse gram, cholai, barley, maize, vegetables (capsicum, tomato, potato), fruits (peach, pear, plum, apple). He motivates the nearby farming community to stop chemical farming for better health and better crop value. He also suggests for Organic certification of their crop. He realized that in hilly areas if farmer is aware about organic farming and organic certification then the income will increase automatically for eg. In village Majheda a farmer earned high profit finger millet (Rs.10 per/Kg profit), horse gram (Rs.20-40 per/Kg profit) French bean (Rs.30-40 per/Kg profit), Soyabean (Rs.10-15 per/Kg profit).

#### 28. Shri Upendra Nagar Bulandshahar District, Utter Pradesh

Shri. Upendra Nagar, S/o Late Sri Shiv Shankar Dayal Nagar from Moharsa has started cultivation of paddy in 1 – acre under pure organic farming methods and also cultivated another acre of paddy under chemical fertilizers as a comparison crop. He has successfully conducted the Farm Lab experiment with two varieties viz Pusa basmati 1509 under organic and Sugandha-5 under normal inorganic condition. Yield data obtained indicated that the plot under Organic cultivation gave higher yield (18 q/acre) than control plot inorganic plot (16q/acre). Variety Sugandha-5 used under controlled plot suffered from false smut disease while, variety Pusa basmati 1509 was free from diseases and insect pest damage. Besides, organic produce was sold at a premium price of Rs. 2900 /qtl and control plot yield fetched relatively lower price of Rs. 2200/qtl.

#### 29. Shri. Anil Kumar Singh Chandauli District, Utter Pradesh

Sri Anil Kumar Singh S/O Sri Hari Nath Singh from Village Dayalpur, Varanasi is a progressive and innovative farmer of Chandauli district. He started the cultivation of Paddy in 1– acre under pure Organic farming methods and also cultivated another acre of Paddy under chemical fertilizers. He has successfully conducted the Farm Lab experiment with two varieties viz. Black Rice (Chak Hao) under organic and Jeera 32 under normal inorganic condition. Yield data obtained indicated that the plot under Organic cultivation gave higher yield (12 q/acre) than the control inorganic plot (12 q/acre). Variety Jeera 32 used under controlled plot suffered from false smut disease while variety Black Rice (Chak Hao) was free from diseases and insect pest damage. Beside, organic produce has medicinal importance & was sold at premium price of Rs. 200 /kg and control plot yield fetched relatively low price of Rs. 3000/q. The cost of cultivation in Organic plot recorded low (Rs. 23725/acre) as compared to the control inorganic plot (Rs. 26700/acre).

#### 30. Shri. Sukhnandan, Jhansi District, Uttar Pradesh

Shri. Sukhnandan is a progressive farmer from Magarwara Village and holds 3 acre of land which is slightly irrigated. Earlier, he used to grow groundnut where he earned Rs. 15000- 20000 in one acre, but after getting trained as organic trainer he started growing Tulasi, where he can earns 25-30000 rupees per acre. He started working mixed farming wherein, he grows chilli, brinjal, bottle gourd, potato, papaya in one acre land & is very happy about the positive change.

#### 31. Shri Veer Singh Rajput Jhansi District, Uttar Pradesh

Shri. Veer Singh Rajpu belongs to Ganeshgarh Village in the drought struck region of Bundelkhand. He has gained technical skills from PBRI and has expanded market links for his vermi-composting unit. While, prior he was earning Rs. One lakh from the sale of worms now he earns Rs. 2 lakh. The farm of Shri Bhanu Prakash Rajput was recently visited by the district magistrate and other officials who appreciated his efforts in vermicompost business.

#### 32. Shri. Ramesh Bachhar Nadia District, West Bengal

Sri Ramesh Bachhar resident of Village Patikabari, has a small plot (10,000 square feet) of cultivable land. He was fed up with the chemical method of cultivation due to the increasing cost of chemical fertilizers and pesticides. He started organic farming after the training and learnt preparation of jeevamrut & neem spray with the local resources. He broadcasted jeevamrut during the soil/land preparation and also during crop germination. The crop was Chichinda (snake gourd) and the price of his organic snake gourd fetched him Rs. 2.00 more than the chemically grown one. He earned Rs.2495/- net profit through organic farming.

#### 33. Smt. Pushpa Mondal south 24 Parganas District, West Bengal

Smt. Pushpa Mondal resident of village Andulgoria, Block Bhangar-1 in south 24 Parganas district of West Bengal owns just one bigha of cultivable land. She grows vegetables most of the time followed by mustard and maize in the rabi seasons. After participating in the Organic grower training conducted by Farmer trainer Joydev Biswas she was highly motivated to practice the Organic method of farming.

#### 34. Narration of Paddy Nursery Techniques of district of Kalahandi Odisha

The district of Kalahandi occupies the south western portion of Odisha state and it has been in the lime light due to various anthropological and natural disasters. Recurrence of drought, epidemics, starvation deaths and mass migration has become a way of life for a large segment of population in this district. The region, therefore, has acquired a distinct place of its own in the World development map for its distress situation

## Case study of Sri Vasireddy Srinivas Prasad, District- Guntur, Andhra Pradesh

Sri. Vasireddy Srinivasa Prasad, S/o.Subbarao, aged about 60 years, a post graduate in Arts and retired as Principal, Degree College at Guntur, has participated in the farmers meet conveyed by PBRI at Yogpeeth, Haridwar, along with his colleagues & interacted with many farmers from different states in Oct-2018. He has collected information on cultivation of different crops through organic practices on his own interest and zeal. He got inspired on the messages from PP Guruji and Acharyaji, with a strong belief of organic Agriculture as a divine profession along with honouring cows as Kamadhenu (Gomatha) which will give healthy villages leading to healthy India. He was trained & qualified as Trainer Farmer under PFSP.

As a trainer, he has trained 154 qualified farmer trainees in Guntur district, A.P., for the job role of Organic Grower. He made a Model Organic Demo Plot at Jupudi village, Ponnur Mandal, Guntur district, A.P. at the entrance of the village where all the passersby has an access of scene and to follow the methods of Organic Agricultural Practices. In that demo Plot, he has cultivated Paddy, Sugandha Sambar Variety, 1- acre each on organic and Inorganic cultivation practices.

When compared to Organic and Inorganic crop data, the yields are less in the Organic Cultivation when compared to Inorganic. The Inorganic products have been sold at field level to the villagers with low margin gaining small profits. In case of organic yield the produce is thoroughly dried, stored and milled on the basis of requirement gaining value added selling price.

The farmers passing through the road side Organic paddy plot of Sri Vasireddy Srinivasa Prasad are showing enthusiasm to know the facts for gaining good profit apart from sound health by consuming organic produce. Some of them are motivated and are showing interest for the cultivation of farm produce through organic method learnt from Sri V. S. Prasad from the next season onwards and want to become part of healthy people, healthy village, healthy India.





## The particulars cost of cultivation for organic, Inorganic and cost benefit ratio.

Farmer Name	Vasireddy Srinivasa Prasad				
Village, District, State	ge, District, State Jupudi, Ponnur Mandal ,Guntur District, A.P				
Crop/ Area	Paddy, Sugnadha Sambar/ 1 Acre				
Crop season	Kariff-2019	Kariff-2019			
Items	Organic	Organic Cost – Rs. Inorganic			
Seed	Paddy	1000	Paddy	1000	
Seed treatment	Trycoderma + cow Urine	10	Dithene M-45	150	
Field Preparation	Ploughing & Puddling	3000	Ploughing & Puddling	3000	
Nursery		400		400	
Basel fertilizer application	4 Ton compost, Trycoderma, PSB, KNB, Floroscense, Poshak, Prom & neem cake	4000	2 Ton FYM, SSP - 125 Kg, Potash-40 Kg.	12000	
Transplantation		4000		4000	
Weeding	Hand weeding	6000	Weedicide + Hand	6000	
Top dressing	Khad 40 kg.	800	Urea	2400	
Pest & disease control	Panchagavya & Neem oil	3000	3G granules & Pesticides	4500	
Irrigation	Canal (separate channel)	1000			
Harvesting, drying-		9000		7000	
Transportation		1500		1500	
Other expenses		800		2200	
Total cost		34510		44150	
Yield 20 quintals, @3000	(Marketing as Organic Value added price)	60000	Yield 30 quintals, @ 1400 (sold to millers)	42000	
Straw yield		0	Straw yield	2500	
Total Cost		62000	Total Cost	44500	
Net profit		27490	Net profit	350	
Net profit (Organic- Inorga	anic)	27490-350= 27140			

## Case study of Sri. Veldhi Pavan Kumar, District- West Godavari, Andhra Pradesh

Sri Veldhi Pavan Kumar, S/o Nageswara Rao, aged about 28 years, completed his B.Sc., Computers, teaching in a reputed computer Company in Hyderabad, who has been inspired by a call form PP Ramdev Babaji Acharyaji, has attended the mega Organic farmers meeting during Oct-2018, trained, qualified and got registered as trainer farmer. Where in Sri Pavan Kumar having concern and interest on Human Healthy Atmosphere, clean Drinking water Resources and water table declines in his village surroundings and has started comparing regarding the hazards by using excessive chemical fertilizers and indiscriminate use of pesticides on human health, since 2017 onwards established Goshala and started preparing Jeevamrutham & Ghanjeevamrutha, Pancha Gavya and started using in his own 3-Acres land belongs his family and started demonstrating to the farmers in his village and also participating in the A.P. govt. Schemes on Organic Agriculture. As a trainer farmer he has trained 185 qualified farmers, 23 in his own village, 85 in West Godavari District and 77 in Guntur district for the job role of Organic Growers.

Mr. Pavan Kumar started his own demo plot of Paddy in 1 – acre under pure Organic farming methods and also cultivated another acre of Paddy under chemical fertilizers as a comparison crop. He started showing the comparisons to the surrounding farmers, the difference in the cost of cultivation, health of the crop, quality parameters, yields and value added qualities of Organic produce with the support of PBRI and other Govt. Agri departments. Finally he stood as a youngest pioneer successful Organic farmer in his village and motivated large number of fellow farmers.

As per the farm lab and control plot data, the yields are less in Organic cultivation (2nd year crop) when compared to Inorganic controlled plot. Due to the high expenditure towards Inorganic fertilizer and pest control chemical is recorded high and the market rates are very low i.e. Rs. 1100/- per 70 kg bag at field level. Whereas Inorganic paddy field, the production is low (18 Quintals) when comparative control plot. But, the value added Rice per Organic paddy is high i.e. Rs. 1400/- per 70 kg bag at field level. In addition the cost of cultivation in Inorganic Agriculture as recorded high (Rs. 34850/-) when comparative Organic plot (Rs. 32010/-).

The local farmers surrounding to the field of Veldhi Pavan Kumar have been observing the farm lab since beginning as appreciated the processing followed by Veldhi Pavan Kumar and could realise the value added appreciation price to the Organic produces, low cost of cultivation and the profits per Acre made by him during the Video recording of Organic Plot of Sri Veldhi Pavan Kumar. Finally they all accepted the benefits of Organic farming methods which is showing impact on crop standing, its health, quality of grain, atmosphere and value added rice benefits and favoured for conversion of thousands into Organic farming in a phased manner from next season onwards and decided to be part of their Gram Vikas in the coming years.

## The particulars cost of cultivation for Organic & Inorganic and Cost Benefit Ratio

Name	Name Veldhi Pavan Kumar					
Village	Village Mallayagudem, Chintalapudi M		Mandal			
District, State	West Godavari, Andhra Prades					
Crop/ Land area	Paddy/ 1 Acre (Organic) + 1 Acre (Inorganic)					
Crop season	Kariff-2019					
Items	Organic	Cost – Rs.				
seeds	Paddy, IIRR93R	1000	MTU 7029	1000		
Seed treatment	Trycoderma+ Cow Urine	10	Dithene M-45	150		
Field preparations	Ploughing & Puddling	3000	Ploughing & Pud- dling	3000		
Nursery		400		600		
Basel Fertilizer application	4 tonnes compost mixed Try- coderma, PSB, KNB, flores- cence, Poshak & Promo-40 kg, Neem cake-10 kg	3300	2 tonnes FYM, SSP-125 kg, Pot- ash-40 kg	4700		
Transplantation		4000		4000		
Weeding	Hand weeding	5500	Weedicide + hand weeding	4900		
Top dressing	Khad - 40 kg	800	Urea	1600		
Pest - disease control	Panchagavya & Neem Oil	800	3 G granules - 3 kg, pesticides	4200		
Irrigation	Rain fed		Rain fed			
Harvesting & Processing	Hand	9000	Hand	7000		
Transportation		2000		1500		
Other expenses		2200		2200		
Total Cost		32010		34850		
Yield	18 quintals, @ 3000	54000	30 quintals, @ 1400	43200		
Straw yield		2000	Straw yield 2000	2000		
Total Cost		56000	Total Cost	45200		
Net profit (Organic - Inorg	ganic)	56	000- 45200	10800/-		

## Case study of Sri Kongara Kishore, District- East Godavari, Andhra Pradesh

Sri. Kongara Kishore, S/o Satyanarayana, aged about 44 years, a graduate in Commerce, working in a Pvt. Organization in Hyderabad, who attended farmers meetings at Patanjali Yogpeeth PBRI, Haridwar, during Oct-2018, inspired by PP Ramdev Babaji Acharyaji, enrolled & attended the training of Training Programme conducted by NSDC & PBRI, qualified and got registered as Organic Grower. Intern, he has trained 106 trainee formers, 21 in his own village, 48 in Prakasam and 37 in Guntur district for the job role of Organic Growers. On the inspiration and encouragement from PBRI, he has been touring frequently on his own, to his native village in East Godavari, which is very far away from Hyderabad. He was gathering youth and elderly likeminded farmers and teaching them the necessity of age old traditional Organic Farming practices where their forefathers educated, lived with sound health and hale long lives. Moreover he has adapted & guiding them the Organic cultivation practices, finding out good marketing areas, in the cities of A.P.

Being a land owner of 30-Acres, he has cultivated 1-Acre of Sugarcane V 46 variety on pure Organic manner along with a control plot of 1-Acre sugarcane as model plot and also planning to cultivate all leased lands on his own gradually. In every trip he goes to his village, gathering the fellow farmers at his field and showing them, the crop growth between Organic and Inorganic method, based on extension formula of "Seeing is Believing" and motivating them.

#### **Special Marketing Efforts**

Even though the yields are recorded low in Organic Sugarcane plot when compared with controlled plot, he has extracted the Sugarcane juice and cooked into Organic Jaggery making blocks from 1 Kg. to 10 Kg., packed and marketing at Hyderabad with value added price of Rs. 100 to Rs. 110/- per Kg. and making good profits.



## The particulars cost of cultivation for Organic & Inorganic and Cost Benefit Ratio

Name	Kongara Kishore					
Village	Gandepalli					
District, State	East Godavari, A.P.					
Crop/ Land area	Sugarcane V46/ 1-Acre					
Crop season	AD SALI (Jan-2019 sowin	g)				
Items	Organic	Cost-Rs.	Inorganic	Cost-Rs.		
Seeds	Sugarcane V46 (sets)	15000	V46 (sets)	15000		
Field preparation	Ploughing, disk harrowing, making ridges & furrows	5000	Ploughing, disk harrowing, making ridges & furrows	5000		
Basel fertiliser & top dressing	8-tonnes of compost, Try- coderma, PSB, KNB, Flo- rescence, Poshak & Prom, Khad neem cake with transport	8000	Single super phosphate, 3G granules, boran, pottash, 3 tonnes composte	20000		
Planting	Manual	10000	Manual	10000		
Weeding	4 Times	12000	Weedicide+3 times	15000		
Pest & disease control	Neem oil extraction, Agnastram, Jivamrutam & other extractions	8000	Pesticides and fungicides	15000		
Irrigation (water boy + electricity)	Bore well	8000	Bore well	8000		
harvesting		18000		18000		
Bundling		3000		3000		
Transportation		4000		7000		
Other expenses (extraction of juice for making of Jaggery blocks & packing)	19000		25000			
Total expenses		110000		141000		
Yield @ Rs. 1000/- per quintal	150 quintal	150000	170 quintal	170000		
Net profit	40000		29000			
Net profit (Organic – Inorganic)		40000-290	000= 11000			

## Case study of Arun Kumar Roy, Farmer Trainer, District- Dhubri, Assam

Sri Arun Kumar Roy S/o Lt. Sonaram Roy born on 01-10-1966 in the Village Molandubi, Tehsil Bilasipara, Dist. Dhubri, Assam having one acre land. He started organic farming and is growing mainly rice (Ranjit, Tulsibhog) in Kharif and vegetable crop in Rabi season. He attended the 10 days training programme on Organic Grower organized by PBRI. He conducted the training programme for the job role Organic Grower for 97 farmers in two batches in his village. He started growing rice and vegetables by organic methods confidently in his own farm. He has also motivated the other farmers of his village to grow chemical free crop. He happens to be a Yoga teacher and in charge of Patanjali Kishan Sewa Samitee of Dhubri District. Earlier, he was also honoured by KVK, Dhubri on his dedication in growing soybean crop in his farm.

It has been observed that Rs. 9200/- could be generated from cultivating rice organically in one acre of land. Further, minimum expenses were incurred in disease and pest control. On the basis of his experience, he expressed that the organic farming reduces in the cost of fertiliser and pesticides though the labour cost was higher. To him, Organic cultivation sustains soil health, improve the soil structure and grain quality is good as compared to inorganically grown crop.



RPL Inauguration programme on 12.3.2019



Organic Cultivation by Sri. A.K. Roy



**During RPL Training** 



RPL Assessment on 1.4.2019

## The organic cultivation practices of Sri AK Roy

Farmer Name	Arun Kumar Roy				
Village, District, State	Village Molandubi, Tehsil Bilasipara, Dist. Dhubri				
Crop	Rice - Ranjit and Tulsibhog	Rice - Ranjit and Tulsibhog			
Area	1 acre				
Crop season	Kharif, 2019				
Items	Organic	Cost (Rs.)			
Seed	Rice - Ranjit & Tulsibhog	400			
Land preparation	Ploughing & puddling	3500			
Planting	Ranjit & Tulsibhog	3600			
Fertilizer	FYM, Vermicompost	3000			
Nutrient applied	Nil				
Weed control	Hand weeding	500			
Disease control	Nil	-			
Fungicide used	Trichoderma	100			
Pest control	Manual	400			
Irrigation applied	Rain and tubewell (4)	800			
Harvesting	Manual harvesting	2700			
Transportation Charges	Field to market	1000			
Input cost (Rs)	16000				
Grain yield (Kg/acre)	1200 Kg 21000				
Straw yield ((Kg/acre)	600 Kg 4200				
Total income (Rs/acre))		25200			
Net profit (Rs/acre)	25200 - 16000 = 9200				

## Case study of Bhola Nath Sarma, District- Dhubri, Assam

Sri Bhola Nath Sarma S/o Lt. Sudhir Sarma born on 31-3-1967 in the Village Medhipara, Tehsil Bilasipara, Dist. Dhubri, Assam having about 2 acre land, started organic farming since kharif 2018. After attending the 10 days training programme on Organic Grower, organized by PBRI-Assam unit on 3-11 January, 2019 at KVK Kamrup, Guwahati, Assam, he started conducting the training programme for the job role of Organic Grower for 99 farmers in two batches in his locality. He started growing rice and vegetables crop organically in his own farm. He has also motivated the other farmers of his village to grow chemical free crop. He also started growing strawberry, mushrooms and vegetables organically. He has a desi cow, a small unit of green house, a vermi-composting unit, FYM unit etc along with a small medicinal garden.

It was observed from the above table that Rs 800 were spent in pest and disease control because there was minimum incidence of pest and disease as the crop was grown organically. On the basis of his experience, he expressed that the organic farming reduces the cost of fertiliser and pesticides, labour cost is higher, maintained soil health, improve the soil structure and grain quality is good as compared to inorganically grown crop. He has also mentioned that grain yield of the crop was reduced slightly in case of organically grown crop. He could earn Rs 20688/acre as a profit from rice only.

According to Sri Sarma, he is now in a comfortable position economically, as the output from his farm increased as well as the production costs was lowered. The taste of organically grown crops is delicious and he gets good price of his harvests. The cost of medicines in his family was also reduced for use of organic crops. Sarma is a well-known personality in the area in his profession. Often people come to visit him for solving different agricultural problems as he could analyse the Soil Test Results, could show/control insect-pests by using Cattle dung/urine/ neem extracts etc organically. He is followed by many people in the locality as they are convinced and encouraged with his production techniques. He was awarded a certificate and documentary was also done by the KVK, Dhubri on his farm products. He acknowledged the opportunity offered by PBRI, Haridwar for the 9 days training which gave him a scientific approach in organic production system.



**Organic Strawberry Cultivation** 



**Brinial Cultivation** 

## The cultivation practices followed by Sri BN Sarma are

Farmer Name	Bhola Nath Sarma	Bhola Nath Sarma			
Village, District, State	Village Medhipara, Tehsil Bilas	Village Medhipara, Tehsil Bilasipara, Dist. Dhubri, Assam			
Crop	Rice - Ranjit / Mushroom, Strav	Rice - Ranjit / Mushroom, Strawberry			
Area	1 acres				
Crop season	Kharif, 2019				
Items	Organic	Cost (Rs.)			
Seed	Rice - Ranjit, Kola joha	700			
Land preparation	Ploughing & puddling	4000			
Transplanting		5000			
Nutrient application	FYM, Vermicompost	2000			
Weed control	Hand weeding	1200			
Disease control	Cow urine, Turmeric etc	300			
Fungicide used	Trichoderma	200			
Pest control	Neem products	300			
Irrigation applied	Rain and tubewell (4)	200			
Harvesting	Manual	4000			
Transportation Charges	Field to market	1500			
Others	Bagging materials etc	600			
Input cost (Rs)		20000			
Grain yield (Kg/Acre)	3640Kg	54600			
Straw yield (Kg/Acre)	968 Kg	6776			
Total income (Rs/Acre)		61376			
Net profit (Rs.)	61376 – 20000 =Rs 41376/				

## Success Story of Sri Bikash Das Biswanath, District- Biswanath, Assam

Sri Bikash Das S/o Sri Brajendra Das born on 15 February-1981 in Village Thalipukhuri, Tehsil Gohpur, Dist. Biswanath, Assam having about 16 Bighas of land (5 acres), started organic farming since Kharif 2016. He grew mainly paddy in Kharif and vegetable crops in Rabi season. He attended 10 days training programme of Organic Grower organized by PBRI-Assam unit from 3rd to 11th January, 2019 at KVK Kamrup, Guwahati, Assam. Subsequently, he conducted the training programme for the job role of Organic Grower for 50 farmers in his village. He started growing paddy and vegetables crop chemical free with organic method only. He had his own compost and vermicompost units. He has also motivated the other farmers of his village to grow chemical free crop. PBRI supplied Bio fertilizers and Bio pesticides. The economics of his organic farm have been provided in the following table.

It is evident from the table that minimum expenditure was incurred in controlling diseases and pests. In fact, there was no serious incidence of pest and disease in the crop. He could earn Rs 42400/- per acre from his organic products of rice only.



Vermicompost Unit



Organically grown crop with PBRI board



News Paper coverage



Organic Farming under Plastic house

The cultivation economics of organic crops of Bikash Das

Farmer Name	Bikash Das			
Village, District, State	Village Thalipukhuri, Tehsil Gohpur, Dist. Biswanath, Assam			
Crop	Paddy, Variety Black Rice, Jai Bangla			
Area	1 acres			
Crop season	Kharif, 2019			
Items	Organic	Cost (Rs.)		
Seed	Black Rice, Jai Bangla	400		
Seed treatment	Cow urine	-		
Field preparation	Ploughing & puddling	4800		
Transplanting	Manually transplanting	3000		
Nutrient applied	FYM and vermicompost	2000		
Weed control	Hand weeding	1000		
Disease control	-	-		
Fungicide used	Trichoderma	200		
Pest control	Cow urine	200		
Irrigation applied	Rainfed and tubewell (3)	1000		
Harvesting	harvesting	2400		
Transportation Charges	Field to market	1000		
Input cost (Rs)		16000		
Grain yield (Q/Acre)	20 Q @ Rs 2500 =	50000		
Straw yield (Q/ha)	12 Q @ Rs 700 = 8400			
Total income (Rs.)		584000		
Net profit (Rs.)	584000-16000= Rs.42400/Acre			

According to Sri Bikash Das, his income had gone high due to lowering the production costs and selling of good quality organic products as a farmer. The cost of medicines in his family was also reduced and he has gained popularity for his profession. Often people come to visit him for solving different agricultural problems as he could analyze the soil test results, could show/control insect-pests by using cattle dung/urine/neem extracts etc. His example is followed by many in the locality as people are convinced and encouraged with his techniques of production.

## Case study of Sunirmal Roy, Farmer Trainer, District- Cachar, Assam

Sunirmal Roy S/o Lt. Sughendu Kumar Roy born on 29-12-1970 in the Village Kashipur, Tehsil Silchar, Dist. Cachar, Assam. He has two acre land, where he started Organic Farming from Kharif 2018 initially rice in Kharif and vegetable crops in Rabi season. Sri Roy attended the 10 days training programme on Organic Grower organized by PBRI-Assam unit from 3rd to 11th January, 2019 at KVK, Kamrup, Guwahati, Assam. He conducted the RPL training programme for the job role of Organic Grower to 98 farmers in two batches in his village. Simultaneously, he grew rice variety Ranjit in organic as well as inorganic method in one acre of land each in Kharif, 2019.

Sri Roy possesses a green house, a good horticulture garden, a well managed agriculture farm, three fisheries and a dairy unit with 6 cows. According to him his income was enhanced due to low production costs and selling of good quality organic products. He could analyse the Soil Test Results, could show/control insect-pests by using Cattle dung/urine/ neem extracts etc. His example is followed by many in the locality as people are convinced and encouraged with his techniques of production. He greatly acknowledges the efforts of PBRI, Haridwar on his transition to new field.



Vermicompost Unit



Organically grown crop with PBRI board



Organic harvest from Greenhouse



**RPL** Assessment

The organic and inorganic cultivation practices of Sri Sunirmal Roy

Farmer Name	Sunirmal Roy						
Village, District, State	Village Kashipur, Tehsil Silchar, Dist. Cachar, Assam						
Crop	Rice- Ranjit / Vegetables -	Rice- Ranjit / Vegetables - Tomato, Potato, Lemon, Chilli / Fruits - Papaya					
Area/Season	1+1=2 acres/ Kharif, 2019						
Items	Organic	Cost (Rs)	Inorganic	Cost (Rs)			
Seed	Rice - Ranjit	400	Rice - Ranjit	400			
Seed treatment	Cow urine	0	Bavistin & streptocyclin	500			
Field preparation	Ploughing & puddling	5000	Ploughing & puddling	5000			
Transplanting	Manually transplanting	5000	Manually transplanting	5000			
Nutrient application	FYM, Vermicompost, Jive amrit, PSB, pseudonas	3000	FYM, Urea, SSP, MOP	4000			
Weed control	Hand weeding	500	Pretilachlor	300			
Disease control	-	0	Propiconazole	1000			
Fungicide used	Trichoderma	100	Carbendazim	600			
Pest control	-	0	Cchloropyriphos	1200			
Irrigation	Rain and Bore well (8)	4000	Rain and Bore well (4)	2000			
Harvesting	Harvesting/Threshing	4000	Harvesting/Threshing	4000			
Transportation	Field to market	2000	Field to market	2000			
Input cost (Rs)		24000		26000			
Grain yield (Kg)	2250	33750	2750	35750			
Straw yield (Kg)	750	5250	1000	5000			
Total income (Rs)		39000		40750			
Net profit (Rs.)	profit (Rs.) 39000-24000 15000 40750 -26000 14750						

It was observed from the above table that minimum amount was spent in disease and pest control in organically grown rice and per acre net profit was slightly higher(Rs 15000/-) than chemically cultivated crop (Rs 14750/-). This was primarily due to more input cost and lesser selling price in the chemically grown rice crop .Organic farming reduces the cost of fertiliser and pesticides, improves the soil structure, and maintains soil health and grain quality. Customers give higher price to organically grown crop.

## Case Study of Akhilesh Kumar, District- Vaishali, Bihar

Akhilesh Kumar is an active farmer from Mathnahamal Village, Vaishali district of Bihar having 12 acre own land with irrigated facility. The crops grown by him in Kharif season is paddy, Bajra, wheat and in Rabi season crops are wheat, potato, pulses, mustard, onion &vegetables. After participating in the training of trainer program on Organic grower organized by PBRI at Patna during the month of Nov, 2018, he conducted the training for the job role of organic grower comprising of 50 farmers in his village. He is able to prepare organic manure and plant protection measure in his home. He motivates farmers of his village and nearby villages and an example for other farmers. He initiated the growing of chemical free onions in his farm in 5000 sqm from the month of February and started harvesting from May-June. He harvested total of 1000 kg onion and he sold at vaishali sabji mandi and Muzaffarpur @ Rs 45 per kg., earlier he was selling the same at Rs 40 Rs per kg. He uses panchagavya in field twice.1st dose of panchagavya was done 15 days after transplanting and 2nd dose of panchagavya was applied after 45 days of transplanting. After the use of panchagavya he noticed that the plant growth was good and plants are healthy condition.

#### **Production efforts:**

The expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni. Shri. Akhilesh Kumar has started making compost, panchgavya and dashparni at his home. For panchgavya he uses cow dung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1st time spray panchgavya was done 15 days after transplanting and 2nd dose of panchgavya was applied after 45 days of transplanting. After use of panchgavya he noticed that the plant growth is good and plants are in a healthy condition. For pesticide and insecticides he has used dashparni. For dashparni preparation he used 10 different local/wild plants along with gaumutra and replaced pesticides/insecticides with dashparni.

#### **Marketing efforts:**

The marketing of the produce was done by using polybags and the price realization was higher by approximately Rs.50 per kg. Akhilesh kumar sold small packets of onion at vaishali sabji Mandi and Muzaffarpur Bazaar Samiti. The demand for it increased considerably and traders sought to increase the production of onions. If farmers grow organic onion /vegetables in large scale they gain high profit.

#### **Trends observed/ Conclusion:**

The overall saving was Rs.1720/- which is more than chemical farming even with low production. Shri. Akhilesh kumar feels confident to increase his production of onion from coming season based on the results observed. The villagers are closely observing the initiative taken by Akhilesh kumar and developing positive opinions that is likely to lead to action in their respective fields in coming season.

## Cultivation practice of chemical free & chemical in Onion Farming:

Farmers Name	mers Name Akhilesh kumar				
Village	Mahnahamal, Vaishali district, Bihar				
Crop	Onion				
Area	5000 meter sq2				
Sowing	Feb-March				
Description	Organic Crop	Cost	Inorganic Crop	Cost	
Seed	Onion seeds 1kg	400	Onion seeds 1kg	400	
Field Prepration	Ploughing, Levelling, CompostMixing	2000	Ploughing, Levelling, CompostMixing	2000	
Transplanting	After 45 DAS	1000	After 45 DAS	1000	
Nutrient Management	Compost, panchgavya	1000	Urea (30 k.g.), DAP (40 K.g.), MOP (10 K.g.)	920	
Fungicide & Insecticide	Panchgavya applied 3 times in field	0	Mancozeb (3 sprays 100gm per spray)	500	
Disease Control	Use Dashparni	0	Cyper methrin	300	
Irrigation		1000		1000	
Harvesting		1000		1000	
Total Expenses		6400		7120	
Yield/kg/5000 sq2	1000		1100		
Price/Kg	45		40		
Yield/Value	45000 44000				
Net Profit	45000-6400= 38600 44000-7120=36880				
Organic VS Chemical 38600-36880=1720 (Net Profit from Organic farming)					





## Case Study of Bindeshwari Tiwari, District- Bhojpur, Bihar

Bindeshwari, is a progressive farmer from Daridih Village, Bhojpur district of Bihar. He has 10 acre of own land with good irrigation facility. In one acre, he cultivated menthe, remaining land he grows Paddy, Bajra, wheat crops in Kharif season and in the Rabi season crops are wheat, potato, Pulses, Mustard. He has 1/2 acre Mango orchard. He participated in the training of trainer program for organic growers, organized by PBRI at K.V.K Madhopur during the month of December 2018. He conducted the training for the job role of organic grower comprising of 120 farmers in his village. Along with this he inspired people to do organic farming and started organic cultivation of mentha on his own one acre land.

#### **Production efforts:**

Initially he prepares the nursery from seeds whose weight is 18 kg per one acre of land and followed by planting after 45 days. Flowering starts after 100-120 days of first harvesting and second harvesting is done after 70-80 days of first harvesting. After harvesting, leave the plants in sun shine for 2-3 hours and extract the oil by distillation method at the earliest after drying it lightly in the shade. Growing of chemical free in his 1 acre farm from the month of February and started the harvesting in May. He harvested a total of 20 kg. of Mentha, he sold directly to the customers at Bhojpur at Rs. 1320per kg.

#### **Marketing efforts:**

He gave some quantity of his mentha oil to his nearest and regular traders in bhojpur and patna district. There was a very positive and appreciative approach from the traders for his produce.

#### Trends observed/ Conclusion:

The yield was observed to be 20 kg but the overall saving was Rs2660. which is more than chemical farming even with low production. Shri Bindeshwari Tiwari feels strongly that it would be beneficial to harvest more with organic method, based on the results observed. The villagers are closely observing the initiative taken by Shri Bindeshwar Tiwari and developing positive opinions that is likely to lead to action in their respective fields in coming season. He said that, his income and quality of life has increased being an organic farmer of menthe oil. He also shows his interest to grow organic vegetables in large scale to gain good profit.





## Cultivation practice of chemical free and chemical:

Farmers Name	Bindeshwar Tiwari						
Village	Daridih						
Crop	Mentha	Mentha					
Area	1 Acre						
Sowing	Dec to Feb						
Description	Organic Crop	Cost	Inorganic Crop	Cost			
Seed	18 kg roots @ rs25 per k.g.	450	18 kg roots @ rs25 per k.g.	450			
Field Prepration	Ploughing, Levelling, Compost Mixing	2000	Ploughing, Levelling, Compost Mixing	2000			
Transplanting	After 45 DAS	1000	After 45 DAS	1000			
Nutrient Management	Vermicompost	1000	Urea (100 k.g.), DAP (50 K.g.), Sulphur	2560			
Pesticide/ Disease Control	Neem extract	0	Mancozeb (3 sprays 100gm per spray)	500			
Irrigation	10 times R.s. 100 for one time irrigation	1000	12times R.s. 100 for one time irrigation	1200			
Harvesting	Cutting	1000	Harvesting	1000			
Expenditure	Total Expenses	6450	Total Expenses	8710			
Yield/kg/Acer	20 kg oil		20 kg Oil				
Price/Kg	1320		1300				
Yield/Value	26400		26000				
Net Profit	26400-6450=19950 26000-8710=17290						
Net Profit (Organic vs Chemical) 19950-17290= 2660							

## Case study of Khemchand, District- Palwal, Haryana

Khemchand S/o Shri Ranvir Singh age 36 years from Village Likhi, Tehsil Hodal, District-Palwal, Haryana is having 3 acres land. Khemchand under took 20 days Organic Grower Training imparted by PBRI under PFSP by Trainer Farmer - Shankar Lal. After training he started organic farming of various vegetable crops like - Palak, Methi, Radish, Brinjal, Carrot and Sarson. He is applying various organic manure preparations like - Jeevamrut, Panchagavya, Bio-decomposer and bio control of insects and disease in vegetable crops.

He has been making efforts of direct marketing of his premium organic product in various Residential Societies of Faridabad and New Delhi.

S.No.	Crop Name	Area	Expenses	Total Yield	Rate / kg	Total Return (Rs.)
1.	Palak	½ acre	2500	10 qtl	Rs.30	30000
2.	Methi	¹∕₄ acre	2500	10 qtl	Rs.30	30000
3.	Sarson ka Saag	¹∕₄ acre	2000	10 qtl	Rs.30	15000
4.	Reddish and Sangri	¹∕₄ acre	3500	15 qtl	Rs.20	10000
5.	Carrot	½ acre	4500	12 qtl	Rs.60	8000
6.	Brinjal	¹∕₄ acre	7000	8 qtl	Rs.60	50000
	Total	1 ½ acre	22000			142000

Higher price realization of organic crops is made possible by hard working Khemchand by direct marketing to needy customers and demonstration of product value, diversification and sustainable supply on regular basis.





## Case study of Sh. Mehar Singh, District- Ambala, Haryana

Shri Mehar Singh S/o Sh.Chhaju Ram born on 1st April 1946 in Village Kanjala, Tehsil Naraingarh, Distt. Ambala, Haryana having about 8 acres of irrigated land. He started organic farming since kharif 2018. He grew mainly paddy in kharif and wheat crop in rabi season. After attending the ten days training programme of organic grower organized by PBRI in the month of January, 2019 at KVK NDRI, Karnal, he conducted the training programme for the job role of organic grower for 22 farmers in his village. He started to grow paddy and wheat crop chemically free with organic method confidently in his own farm. He has also motivated the other farmers of his village to grow chemical free crop. He is preparing the decomposer for decomposing the rice straw of his field.

#### The cultivation practices of organic and inorganic followed:

Farmer Name Sh. Mehar Singh								
Village	Kanjala, Ambala District, Haryana							
Crop	Paddy, Variety 27p31 (Hybrid)							
Area	8 acres							
Crop season								
	Kharif, 2019							
Items	Organic	Cost (Rs.)	Inorganic	Cost (Rs.)				
Seed	Hybrid 27P31(Pioneer)	1000	Hybrid 27P31 (Pioneer)	1000				
Seed treatment	Cow urine	0	Bavistin&streptocyclin	50				
Field preparation	Ploughing & puddling	4000	Ploughing & puddling	4000				
Transplanting	Manually transplanting	3000	Manually transplanting	3000				
Nutrient applied	Jivamrit, PSB, pseudomonas	1500	DAP, Urea, Potash & Zinc	2000				
Weed control	Hand weeding	1500	Pretilachlor	300				
Disease control	-	0	Propiconazole	1000				
Fungicide used	Trichoderma	500	Carbendazim	500				
Pest control	-	0	Cartap, chloropyriphos	1500				
Irrigation applied	Rain and tubewell (8)	2500	Rain and tubewell (10)	3000				
Harvesting	Combine harvesting	2000	Combine harvesting	2000				
Transportation Charges	Field to market	1000	Field to market	1000				
Input cost (Rs)		17000		19350				
Grain yield (qt/ha)		25		27				
Straw yield (qt/ha)		15		17				
Total income (Rs.)		46500		50100				
Net profit (Rs.)	46500-17000	29500	50100-19350	30750				

It was observed from the above table that no expenses were incurred on the disease and pest control because there was no incidence of any insect, pest and disease in organically grown paddy crop. On the basis of his experience, he expressed that the organic farming reduces the cost of fertilizer and pesticides, labour cost is higher, maintained soil health, improve the soil structure and grain quality is good as compared to inorganically grown crop. He has also mentioned that grain yield of the crop is reduced slightly in case of organically grown crop.



#### Inorganically grown paddy crop organically grown paddy crop:

The organically grown paddy crop seems to be healthy and greenish in colour. In inorganically grown paddy crop, the tips of the leaves become dry and whitish in colour which indicates the higher dose of fertilizers and other chemicals in spite of the same transplanting dates of both the plots. He is satisfied with the performance of the crop grown organically.





## Success Story of Virender Singh, Himachal Pradesh

Himachal Pradesh by nature has been gifted with rich flora and fauna. The state has rich resources in abundance and the upper terrains of it are organic by default. But due to inaccessibility, these areas are still devoid of latest technology in agriculture and in other fields which have not reached to the masses but still whatever they produce are real organic. To cope up the situation, Patanjali Bio Research Institute, a sister concern of Patanjali Yogpeeth, Haridwar has stepped in by starting a project namely, the Patanjali Farmer Samridhi Programme (PFSP), which is a unique approach of training the Farmers into organic farming and is being supported by National Skill Development Corporation (NSDC) and Agricultural Skill Council of India (ASCI). This is basically a three tier programme where a farmer after attaining training as organic grower trains the fellow farmers for 120 hours where these farmers learn each and every aspect of organic farming. The farmers so trained are assessed by independent agency on the completion of the training.

This practical oriented farmers training in organic growing has resulted in providing technical knowledge, skill and practical insight to the system of organic growing. These farmers are now well versed in the methodology involved in converting the ordinary stuff to organic fertilizers like jeev amrut, compost making, vermi compost, vermi wash and other bio-fertilizers. These farmers are also involving the nearby farmers and new linkages have been established with the Government functionaries, buyers, input suppliers and other stakeholders. He was trained as a trainer farmer by the PBRI under the project Patanjali Farmers Samridhi Programme. He in turn has trained more than 100 farmers under the programme of RPL (Recognition of Prior Learning) in his area. This young trained farmer group although have very small land holdings but are already organized as a group by Patanjali Programme They are now growing crops like garlic, beans, tomatoes, capsicum (colored varieties of high value). In addition under the leadership of Virender Singh each farmer has also now grown fruits plants like pomegranate, apple, pear and kiwi.

Majority of these trained farmers have small polyhouses where they are raising off season vegetables and flowering plants (gladiolus). On an average, trained farmers have gone 100% organic and are earning an average of Rs.8 to 9 Lac per season.





## Brief Description - Cultivation Practice of Organic Inputs Vs Chemical Inputs In Virender Singh's Farm Lab

Farmer name	Virender singh					
Village	Lana kasar, tehsil pachhad, district sirmour, Himachal Pradesh					
Crop	Maize					
Variety	Local					
Area	1 acre					
Sowing/harvest	Jun-July / Sept-Oct					
Description	Organic	Cost	Chemical	Cost		
Seed treatment	Beej amrut, cow urine	0	Hydrogen peroxide	450		
Field preparation	Ploughing, levelling, compost mixing	1000	Ploughing, levelling, compost mixing	1000		
Transplanting	No	Nil	No	Nil		
Nutrient management	No	Nil	No	Nil		
Disease control	No	Nil	No	Nil		
Fungicide	No	Nil	No	Nil		
for shining	No	Nil	No	Nil		
Pest control	No	Nil	No	Nil		
Irrigation	Sprinkler	0	Sprinkler	0		
Plant height	12-13 ft	0	12-13 ft	0		
Harvesting	Manual	300	Manual	300		
Input cost	Total	1300	Total	1750		
Price/quintal	1900-2000/quintal		1700-1800/quintal			
Yield value (rs.)	45,000-50,000		40,000-45,000			
Net profit	42,000 approx		40,000 approx			
Net profit Organic vs chemical	42,000-40,000=2000					

## Case Study of Shri Rajendra Prasad Mahto, District- Ranchi Jharkhand

Rajendra Prasad Mahto resident of Satpalu, Silli, Muri, Ranchi District of Jharkhand owns just over 2 acres of land. The crops grown by Rajendra Prasad Mahto in Kharif season are paddy and in the Rabi season the main crops is wheat. After participating in the training of trainer program organized by PBRI at MASS, SimiliyaLalgarh (Angara), Ranchi, Jharkhand during the month of January 2019, he conducted the training for the job role of organic grower comprising of 200 farmers in his village.

Simultaneously he was motivated to grow his produce through chemical free and organic methods in his own farm so that he could train the nearby farmers on organic farming. He initiated growing of chemical free Paddy in his farm of 1 acre from the month of 3 july 2019 and started the harvesting from 16 November 2019 onwards. He harvested a total grain yield of 22.54 qt, which he sold at Ranchi mandi @Rs 1800 per qt.

#### Cultivation practice of chemical free and chemical:

Farmer Name	Rajendra Prasad Mahto					
Village,District,State	Satpalu , Silli ,Muri, Ranchi , Jharkhand					
Crop	Paddy					
Variety	6444					
Area	2 acres					
Sowing/Harvest	July / November on wards					
Description	Organic	Cost	Chemical	Cost		
Seed Treatment	Trichoderma	25	Bavistin & streptocyclin	500		
Field Preparation	Ploughing & puddling	3000	Ploughing & puddling	3000		
vTransplanting	Manually transplanting	4000	Manually transplanting	4000		
Nutrient applied	Jive amrit, PSB, pseudo- nas, Prom,JaivikKhad,Bio Potash, Bio zink	200	Urea , DAP, MOP, Zink	3000		
Weed control	Hand Weeding	3000	Nominee Gold	800		
Fungicide Used	Trichoderma, Fluorescens	500	Propiconazole, Bavistin	2000		
Insecticide Used	Neemoil, Nemakil	100	Cartap	1000		
Irrigation	Natural rain, Tubewell	3000	Natural rain, Tubewell	3000		
Harvesting, Threshing, Cleaning	Manually	3000	Manually	3000		
Input Cost	Total	16825		20300		
Grain Yield(qt/acre)	22.54		24			
Yield Value(Rs.)	40572		43200			
Net Profit	40572-17225	23747	43200-17850	22900		

#### **Production efforts:**

The expense on nutrients was reduced by using Jeevamrit. He has started making compost, Jeevamrit at home. For Jeevamrit he uses cowdung, cow urine, besan, gur, soil under banyan tree and natural water. He uses Jeevamrit in field thrice. 1st dose of Jeevamrit was given at 15 days after transplanting, 2nd dose of Jeevamrit was applied after 35 days of transplanting and 3rd dose was applied after 65 days. After use of Jeevamrit he noticed that the plant growth is good and plants are in a healthy condition. For bio pesticide he has used Neem oil and Pseudomunas.

#### Marketing efforts:

The marketing of the produce was done by using small cartons and labelling of the produce as chemical free and as a result the price realization was higher by approximately Rs.18 per kg. Suresh Mahto who purchased the produce informed that the demand of organic produce is there but the production is at low level. If farmers grow organic paddy in large scale they gain high profit.

#### Trends observed/ Conclusion:

The yield reduction was observed to be 22.54 qt and the overall saving was Rs. 3475/- which is less than chemical farming even with low production. He feels more confident to increase the field of vegetables from coming season based on the results observed. The villagers are closely observing the initiative taken by him and developing positive opinions that is likely to lead to action in their respective fields in coming season.





# Case study of Shivshankar yadav, Farmer Trainer, District- Deoghar, Jharkhand

Shri. Shivshankar Yadav S/o Kolho Yadav born on 1st January 1975 in Village, Kenmankathi, Jasidih, Deoghar, Jharkhand. Having about 1.5 acres of irrigated land. He started organic farming since kharif 2019. He grew mainly paddy in kharif and wheat crop in rabi season. After attending the ten days training programme of organic grower organized by PBRI in the month of January, 2019 at MASS, Simliya Lalgarh (Angara), Ranchi. He conducted the training programme for the job role of organic grower for 216 farmers in his village. He started to grow paddy and wheat crop chemically free with organic method confidently in his own farm. He has also motivated the other farmers of his village to grow chemical free crop. He is preparing the jivamrit and used in his fields.

#### The cultivation practices of organic and inorganic followed:

Farmer Name	Shivshankar Yadav				
Village, District, State	Kenmankathi, Jasidih, I	Kenmankathi, Jasidih, Deoghar, Jharkhand			
Crop	Paddy, Lalat (local)				
Area	2 acres				
Crop season	Kharif, 2019				
Items	Organic	Cost (Rs.)	Inorganic	Cost (Rs.)	
Seed	Lalat	1500	Lalat	1500	
Seed treatment	Cow urine	-	Bavistin & streptocyclin	50	
Field preparation	Ploughing & puddling	4000	Ploughing & puddling	4000	
Transplanting	Manually transplanting	5000	Manually transplanting	5000	
Nutrient applied	Jive amrit, PSB, pseudomonas	1500	DAP, Urea, Potash & Zinc	2000	
Weed control	Hand weeding	2000	Pretilachlor	300	
Disease control	-	-	Propiconazole	1000	
Fungicide used	Trichoderma	500	Carbendazim	500	
Pest control	-	-	Cartap, chloropyriphos	1500	
Irrigation applied	Rain and tubewell (3)	3000	Rain and tubewell (10)	3000	
Harvesting	Combine harvesting	2000	Combine harvesting	2000	
Transportation Charges	Field to market	1000	Field to market	1000	
Input cost (Rs)		20500		21850	
Grain yield (qt/ha)		16		18	
Straw yield (qt/ha)		14		16	
Total income (Rs.)		32000		27000	
Net profit (Rs.)	32000-20500	11500	27000-21850	5150	

It was observed from the above table that no expenses were incurred on the disease and pest control because there was no incidence of any insect, pest and disease in organically grown paddy crop. On the basis of his experience, he expressed that the organic farming reduces in the cost of fertilizer and pesticides, labour cost is higher, maintained soil health, improve the soil structure and grain quality is good as compared to inorganically grown crop. He has also mentioned that grain yield of the crop is reduced slightly in case of organically grown crop.

The organically grown paddy crop seems to be healthy and greenish in colour. In inorganically grown paddy crop, the tips of the leave become dry and whitish in colour which indicates the higher dose of fertilizers and other chemicals in spite of the same transplanting dates of both the plots. He is satisfied with the performance of the crop grown organically.





## Case study of Basavanni B Nelajgi, District- Belgaum, Karnataka

Basavanni B Nelagji, S/o Bheemappa Nelajgi, aged about 70 years, completed his B.Sc., Botany, he worked as a Agriculture Officer in Karnataka State Department of Agriculture for 35 years and after retirement he started farming in his own land which is around 8 acres, who has been inspired by a call from PP Ramdev Babaji Acharyaji, attended the mega Organic farmers meeting during Oct-2018, trained, qualified and got registered as PBRI trainer farmer. Wherein, he started comparing water used in paddy cultivation and water table declines in his village surroundings and has started comparing regarding the hazards by using excessive chemical fertilizers and indiscriminate use of pesticides on human health, since 2015.

He is having cows, bullocks and started preparing Jeevamrutham, Pancha Gavya vermicompost, biodigester and started using in his own 8- Acres land belongs his family and started demonstrating to the farmers in his village and also participating in the Karnataka Govt. Schemes on Organic Agriculture. As a trainer farmer he has trained 50 qualified farmers, 36 in his own village.

Mr. Basavanni B Nelagji started his own demo plot of Paddy in 1 – acre under pure Organic farming methods and also cultivated another Acre of Paddy under chemical fertilizers as a comparison crop. He started showing the comparisons to the surrounding farmers, the difference in the cost of cultivation, health of the crop, quality parameters, yields and value added qualities of Organic produce with the support of PBRI and other Govt. Agri departments. Finally he stood as a pioneer successful Organic farmer in his village and motivated large number of fellow farmers.

As per the farm lab and control plot data, the yields are more in Organic cultivation (2nd year crop) when compared to Inorganic controlled plot. Due to the high expenditure towards Inorganic fertilizer and pest control chemical is recorded high and the market rates are very low i.e. Rs. 2100/- per 75 kg bag at field level. Whereas Inorganic paddy field, the production is low (14 Quintals) when comparative to Organic control plot (18 Quintals) and in Organic plot pest-diseases incidence is low. In addition the cost of cultivation in Inorganic Agriculture as recorded high (Rs. 36650/-) when comparative Organic plot (Rs. 32010/-).

The local farmers surrounding to the field of Basavanni B Nelagji have been observing the farm lab since beginning as appreciated the processing followed by Basavanni B Nelagji and could realise the value added appreciation price to the Organic produces, low cost of cultivation and the profits per Acre made by him during the Video recording of Organic Plot of Basavanni B Nelagji. Finally they all accepted the benefits of Organic farming methods which is showing impact on crop standing, it's health, quality of grain, atmosphere and value added rice benefits and favored for conversion of thousands into Organic farming in a phased manner from next season onwards and decided to be part of their Gram Vikas in the coming years.





## The particulars cost of cultivation for Organic & Inorganic and Cost Benefit Ratio

Name	Basavanni B Nelagji					
Village	Kamsinkoppa, Khanapur					
District, State	Belguam, Karnataka					
Crop/ area	Paddy/ 1 Acre (Organic) + 1 A	Paddy/ 1 Acre (Organic) + 1 Acre (Inorganic)				
Crop season	Kariff-2019					
Items	Organic	Cost – Rs.	Inorganic	Cost-Rs.		
Seeds	Paddy Belgaum Basmati	1000	Paddy Belgaum Basmati	1000		
Seed treatment	Trycoderma+Psudomonas	10	Dithene M-45	150		
Field Preparation	Ploughing & Puddling	3000	Ploughing & Pud- dling	3000		
Nursery	Vermicompost	400	20:20:00;13	900		
Basal Fertilizer Application	4 tonnes compost mixed Try- coderma, PSB, KNB, flores- cence, Poshak & Promo40 kg, Neem cake-10 kg	3300	2 tonnes FYM, SSP-125 kg, Pot- ash-40 kg and Urea	5700		
Transplanting		4000		4000		
Weeding	Hand weeding	5500	Weedicide + hand weeding	4900		
Top dressing	Khad - 40 kg	800	Urea	1600		
Pest and Diseases control	Panchagavya & Neem Oil	800	3G granules - 3 kg, pesticides	4200		
Irrigation	Rain fed		Rain fed			
Harvesting and Processing	Hand	9000	Hand	7000		
Transportation		2000		2000		
Other Expenses		2200		2200		
Total Cost		32010		36650		
Yield	18 quintals, @ 3000	50400	14 quintals, @ 2800	39200		
Straw Yield	Straw yield 2000	2000	Straw yield 2000	2000		
Total Cost	52400		41200			
Net profit (Organic - Inorg	ganic)	52400-4120	0	11200/-		

# Case study of Gangadhar Patil, District- Belgaum, Karnataka

Gangadhar R Patil, S/o Rudragouda Patil, aged about 58 years, completed his Bachelor of Arts, after the completion of his studies he started farming, he grown Mango, paddy and some Vegetables for his livelihood in his 6 acre land at near Belgaum Karnataka, who has been inspired by a call from PP Ramdev Babaji Acharyaji, has attended the mega Organic farmers meeting during Oct-2018, trained, qualified and got registered PBRI, as trainer farmer. Where in he started comparing water used in paddy cultivation and to in other crops and noticed water table declines in his village surroundings and has started comparing regarding the hazards by using excessive chemical fertilizers and indiscriminate use of pesticides on human health, since 2013.

He is having cows, bullocks and started preparing Jeevamrutham, Pancha Gavya vermicompost, biodigester and started using in his own 6- Acres land belongs to his family and started demonstrating to the farmers in his village and also participating in the Karnataka Govt. Schemes on Organic Agriculture. As a trainer farmer he has trained 50 qualified farmers, 32 in his own vil lage.

Mr. Gangadhar R Patil started his own demo plot of Paddy in 1 – acre under pure Organic farming methods and also cultivated another Acre of Paddy under chemical fertilizers as a comparison crop. He started showing the comparisons to the surrounding farmers, the difference in the cost of cultivation, health of the crop, quality parameters, yields and value added qualities of Organic produce with the support of PBRI and other Govt. Agri departments. Finally he stood as a pioneer successful Organic farmer in his village and motivated large number of fellow farmers.

As per the farm lab and control plot data, the yields are more in Organic cultivation (2nd year crop) when compared to Inorganic controlled plot. Due to the high expenditure towards Inorganic fertilizer and pest control chemical is recorded high and the market rates are very low i.e. Rs. 2100/- per 75 kg bag at field level. Whereas Inorganic paddy field, the production is low (14 Quintals) when comparative to Organic control plot (18 Quintals) and in Organic plot pest-diseases incidence is low. In addition the cost of cultivation in Inorganic Agriculture as recorded high (Rs. 36650/-) when comparative Organic plot (Rs. 32010/-).

The local farmers surrounding to the field of Gangadhar R Patil have been observing the farm lab since beginning as appreciated the processes followed by Gangadhar R Patil and could realise the value added ap-



preciation price to the Organic produces, low cost of cultivation and the profits per Acre made by him during the Video recording of Organic Plot of Gangadhar R Patil. Finally they all accepted the benefits of Organic farming methods which is showing impact on crop standing, it's health, quality of grain, atmosphere and value added rice benefits and favored for conversion of thousands into Organic farming in a phased manner from next season onwards and decided to be part of their Gram Vikas in the coming years.

### The particulars cost of cultivation for Organic & Inorganic and Cost Benefit Ratio

Name	Gangadhar R Patil				
Village	Gundanatti, Kitur				
District, State	Belguam, Karnataka	Belguam, Karnataka			
Crop/ area	Paddy/ 1 Acre (Organic) + 1 Acre (Inorganic)				
Crop season	Kariff-2019	Kariff-2019			
Items	Organic	Organic Cost - Rs. Inorganic			
Seeds	Paddy Belgaum Basmati	1000	Paddy Belgaum Basmati	1000	
Seed treatment	Trycoderma+Psudomonas	10	Dithene M-45	150	
Field Preparation	Ploughing & Puddling	3000	Ploughing & Puddling	3000	
Nursery	Vermicompost	400	20:20:00;13	900	
Basal Fertilizer Application	4 tonnes compost mixed Trycoderma, PSB, KNB, florescence, Poshak & Pro- mo40 kg, Neem cake-10 kg	3300	2 tonnes FYM, SSP- 125 kg, Potash-40 kg and Urea	5700	
Transplanting		4000		4000	
Weeding	Hand weeding	5500	Weedicide+hand weeding	4900	
Top dressing	Khad - 40 kg	800	Urea	1600	
Pest and Diseases control	Panchagavya & Neem Oil	800	3 G granules - 3 kg, pesticides	4200	
Irrigation	Rain fed		Rain fed		
Harvesting and Processing	Hand	9000	Hand	7000	
Transportation		2000		2000	
Other Expenses		2200		2200	
Total Cost		32010		36650	
Yield	18 quintals, @ 3000	50400	14 quintals, @ 2800	39200	
Straw Yield	Straw yield 2000	2000	Straw yield 2000	2000	
Total Cost	52400		41200		
Net profit (Organic - Inorga	anic)	52400-4120	0	11200	

## Production of Organic rice, Khushal Thawkar, District- Nagpur, Maharashtra

Khushal Vishnuji Thawkar resident of Village Kinhi in Nagpur district of Maharashtra owns just over an acre of land half of which is irrigated. The crops grown by him in Kharif season are Rice, Soyabean and Cotton while in the Rabi season the main crops are Wheat and Gram. After participating in the training of trainer program organized by PBRI at Hyderabad during the month of November 2018 he conducted the training for the job role of organic grower comprising of 72 farmers in his village.

Simultaneously he was motivated to grow his produce through chemical free and organic methods in his own farm so that he could train the nearby farmers on organic farming. He initiated growing of chemical free Rice in his farm in 1 acre (0.40 ha) from the month of June 2019 and started the harvesting from October onwards. The details of his cultivation practices and selling of crop produce in organic and chemical farming are given in following table.

#### **Production efforts:**

The expenses on nutrients and pesiticides were reduced by using Panchgavya and Dashparni. Shri Khushal Thawkar has started making compost, panchgavya and dashparni at home. For panchgavya he uses cowdung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1st time spray panchgavya was done 15 days after transplanting and 2nd dose of panchgavya was applied after 45 days of transplanting. After use of panchgavya he noticed that the plant growth was good and plants were in healthy condition. For pesticide and insecticides he has used dashparni which was preparared by using 10 different local/wild plants along with gomutra.

### **Marketing efforts:**

The marketing of the produce was done by using small bags of 25 kg of the produce as Organic (chemical free) and as a result the price realization was higher by approximately Rs.20 per kg The demand of organic produce was more but the production was less.

#### Trends observed/ Conclusion:

The yield reduction was observed of 100 kg but the overall saving was Rs 8,320 which was more than chemical farming even with less production. Shri Khushal Thawkar felt that he was more confident for increasing his acerage of Rice from coming season based on the results observed. The villagers are closely observing the initiative taken by Shri Khushal Thawkar and developing positive opinions which will motivate them for undertaking organic farming for their crops including rice.





## Cultivation practice of Organic (chemical free) and Chemical farming:

Farmer Name	Khushal Vishnuji Thawkar				
Village	Kinhi, Nagpur Maharashtra	Kinhi, Nagpur Maharashtra			
Crop	Rice				
Variety	Local				
Area	1 Acre				
Sowing/Harvest	June / November onwards				
Description	Organic	Organic Cost Chemical C			
Seed Tratment	Beejaamrut	100	Thiram	100	
Field Preparation	Ploughing, Levelling, Compost mixing	2500	Ploughing, Levelling, Compost mixing	2500	
Transplanting	By Manually	1800	By Manually	1800	
Nutrient Management	Compost, Panchgavya, Ghanamrut after 10 days of transplanting	700	Urea DAP Potash	2500	
Disease control	Neem oil, Dashparni(@15 ltr.)	100	Mancozeb(1 kg)	410	
Fungicide	Dashparni(@15 ltr.) 100		Ridomil(200gm)	345	
For Shining	Panchgavya (1 times /50ltr.)				
(45 days after transplanting)	300	Streptocycline (6 gm) (For 2 spray)	50		
Pest Control	Neem oil, Dashparni (@15ltr.)	100	Bavistin (500gm.)	315	
Irrigation	Natural rain, Flood Method	0	Natural rain, Flood Method	0	
Plant Height	35 to 40 cm	0	45to 50 cm	0	
Harvesting	Harvesting by Sickle	2800	Harvesting by Sickle	2800	
Input Cost	Total	8500		10820	
Yield/Acre/Quintal	12		15		
Milled Rice/Quintal	5		6		
Price/kg	6,000		4,000		
Yield Value(Rs.)	30,000		24,000		
Net Profit	30,000-8,500	21,500	24,000-10,820	13180	
Organic VS Chemical	21,500-13,180	8,320 (Net pro	fit vs Chemical farming	g)	

## Organic Soyabean by Sharad Lambe, District- Chandrapur, Maharashtra

Sharad Baburao Lambe resident of Village Mangli in Chandrapur district of Maharashta owns three acres of rainfed land. The crops grown by him in Kharif season are Soyabean and Cotton while in the Rabi season the main crop is Gram. After participating in the training of trainer program organized by PBRI at the Hyderabad during the month of November 2018 he conducted the training for the job role of organic grower comprising of 28 farmers in his village.

He was motivated to grow his produce through organic methods in his own farm so that he could train the nearby farmers on organic farming. He initiated growing of Organic (chemical free) Soyabean from the month of June 2019 and started the harvesting from October onwards. The details of his cultivation practices and selling of crop produce in organic and chemical farming are given in the following table.

#### **Production efforts:**

The expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni. Shri Sharad Lambe has started making compost, panchgavya and dashparni at home. For panchgavya he used cowdung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1st time spray panchgavya was done after 30 days and 2nd dose of panchgavya was applied after 60 days. After use of panchgavya he noticed that the plant growth was good and plants were in a healthy condition. For pesticide and insecticides he used dashparni. For dashparni preparation he used 10 different local/wild plants along with gomutra of Desi cows.

Marketing efforts: Due to uniform seed size and shining of seed coat, the rates in the market for organic Soyabean were more approximately by Rs.5 per kg. The middleman at Bhadrawati said that the organic produce will have better quality of oils and proteins.

Trends observed/ Conclusion: The yield reduction was observed by 100 kg but the overall saving was Rs. 2700 which was more than chemical farming even with less production. Shri Sharad Lambe felt that he was more confident to increase his acerage of Soyabean from coming season based on the results observed. The villagers are closely observing the initiative taken by Shri Sharad Lambe and developing positive opinions which are likely to increase the area of organic farming from coming season.





## Cultivation practice of Organic (Chemical free) and Chemical farming:

Farmer Name	Sharad Baburao Lambe				
Village	Mangali, Chandrapur Maharashtra				
Crop	Soyabean				
Variety	Ruchi 1001				
Area	1 Acre				
Sowing/Harvest	June / November onwards				
Description	Organic	Cost	Chemical	Cost	
Seed Tratment	Rizhobium	100	Bavistin	100	
Field Preparation	Ploughing, Levelling, Compost mixing	2500	Ploughing, Levelling, Compost mixing	2500	
Transplanting	Not required	0	Not required	0	
Nutrient Management	Compost, Panchgavya, Ghanamrut at the time of sowing	700	DAP Potash at the time of sowing	2100	
Disease control	Neem oil , Dashparni, (@15 ltr.)	100	Zineb (1 kg)	350	
Fungicide	Dashparni, Gomutra (@15 ltr.)	100	Carbendazim (500gm)	450	
For Shining	Panchgavya (1 times /50ltr.)	300	Streptocycline (6 gm)(For 2 spray)	50	
Pest Control	Neem oil, Dashparni (@15ltr.)	100	Emamectin Benzoate (500 gm.)	800	
Irrigation	Natural rain	0	Natural rain	0	
Harvesting	Harvesting by Sickle	2000	Harvesting by Sickle	2000	
Input Cost	Total	5,900		8,350	
Yield/Acre/Quintal	7		8		
Price/kg	3,900		3,400		
Yield Value(Rs.)	27,300		27,200		
Net Profit	27,300-5,900	21,400	27,200-8,350	18700	
Organic VS Chemical	21,400-18,700	2,700 N	et profit (Organic vs Chemical	)	

## Cotton production by Vinod Mohod, District- Nagpur, Maharashtra

Mr. Vinod Shantaram Mohod is a resident of Mouda Village from Nagpur district of Maharashtrahas having 5acres of land with well irrigation. The crops grown by him in Kharif season are Cotton and Soyabean while in the Rabi season the main crops are Wheat and Gram. After participating in the training of trainer program organized by PBRI at Shegaon, Dist. Buldhana (Maharashtra) during the month of January 2019, he conducted the training for the job role of organic grower comprising of 35 farmers in his village.

Vinod Mohod was motivated for growing his produce through organic farming in his own farm so that he could train the nearby farmers on chemical free farming. He initiated growing of Cotton by organic (chemical free) farming. The details of his cultivation practices and selling of crop produce in organic and chemical farming are given in following Table.

#### **Production efforts:**

The expense on nutrients and pesticides were reduced by using Panchgavya and Dashparni. Shri Vinod Mohod has started making compost, panchgavya and dashparni at home. For panchgavya he uses cowdung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1st time spray of panchgavya was done after 30days and 2nd after 60 days of transplanting. After use of panchgavya he noticed that the plant growth was good and plants were in a healthy condition. For pesticide and insecticides he used dashparni. For dashparni preparation he used 10 different local/wild plants along with gomutra of Desi cows.

#### **Marketing efforts:**

The cotton produced through organic fairming was shining with white brightness, the price given to it was approximately more by Rs.5.50 per kg. The middleman at Nagpurmandi said that it was good due to more percentage of fibers than that of chemically grown cotton.

#### **Trends observed/ Conclusion:**

The yield reduction was observed by 150 kg per acre, but the overall saving was Rs. 1,285 which was more than chemical farming even with low production. Shri. Vinod Mohod felt that he was more confident of increasing his acerage of Cotton from coming season based on the results observed. The villagers are closely observing the initiative taken by Shri. Vinod Mohod and developing positive opinions that are likely to increase the area of Cotton through Organic farming in coming season.





## Cultivation practice of Organic (chemical free) and Chemical farming:

Farmer Name	Vinod ShantaramMohod				
Village	Mouda, Nagpur Maharashtra				
Crop	Cotton				
Variety	Ankur 3028				
Area	1 Acre				
Sowing/Harvest	June / Decemberonwards	U			
Description	Organic	Cost	Chemical	Cost	
Seed Treatment	Beejamrut	100	Thiram	100	
Field Preparation	Ploughing, Levelling, Compost mixing				
Transplanting	Not required	Not required 0 Not required 0			
Nutrient Management	Compost, Panchgavya, Ghanamrut at the time of sowing  Urea DAP Potash at the time of sowing			2100	
Disease control	Neem oil ,Dashparni, (@15 ltr.)	100	Mancozeb(1 kg)	410	
Fungicide	Dashparni, Gomutra(@15 ltr.)	100	Carbendazim(500gm)	350	
For Shining	Not required	0	Not required	0	
Pest Control	Neem oil, Dashparni (@15ltr.)	100	Imadoclopride (1.5 Ltr.)	850	
Irrigation	Natural rain , Flooding Method	0	Natural rain , Flooding Method	0	
Plant Height	130 to 135 cm	0	145 to 150 cm	0	
Harvesting	Hand picking	5,600	Hand picking	7,000	
Input Cost	Total	9,200		13,310	
Yield/Acre/Quintal	8.5		10		
Price/kg	5,550		5,000		
Yield Value(Rs.)	47,175		50,000		
Net Profit	47,175-9,200	37,975	50,000-13,310	36,690	
Organic VS Chemical	37,975-36,690	1,285 Net	profit (Organic vs Che	mical)	

# Increased income of Organic Brinjals by Prabhakar Deotale, District- Wardha, Maharashtra

Shri. Prabhakarrao Deotale, the resident of Village Nandora, Post Sewagram, Taluka & District Wardha, is our RPL trainee farmer. He has 1.5 Hect. land and practices traditional organic farming from last five years for growing various vegetables. He participated in the training program organized by PBRI at Nandora during May-June 2019. During training of Patanjali's Farmer Samruddhi Programme, he learnt various new techniques of organic farming e.g. use of straight varieties instead of hybrids, preparations of vermi-compost, vermin-vash, cow dung slurry, Beejamrut and Jeevamrut. By using these techniques, he has started growing vegetables and other crops. Looking towards the more demand of Brinjals during rainy season particularly in this area through his earlier experience, he initiated growing of chemical free Brinjals in his farm in 0.50 Acre (0.20 Hect.) from the month of July 2019 and started the harvesting from September onwards. The details of his cultivation practices and selling of crop produce in organic and chemical farming are given in following table.

#### **Production efforts:**

The expenses on nutrients and pesiticides were reduced by using Panchgavya and Dashparni. Shri Prabhakar Deotale has started making Compost, Panchgavya and Dashparni at home. For Panchgavya he used cowdung, cow urine, cow desi ghee, curd, gur and natural water. He used Panchgavya in field four times i.e 1st spray on 15th day after transplanting and onwards Three sprays with a gap of 15 days. After use of panchgavya he noticed that the plant growth was good and plants were in healthy condition. For pesticide and insecticides he has used dashparni which was preparared by using 10 different local/wild plants along with gomutra.

#### **Marketing efforts:**

The marketing of the produce was done only twice in a week at Sewagram among the staff of Medical & Engineering college. Since the produce was Organic (chemical free), the price realization was higher by approximately Rs.10 per kg. The demand of organic produce was more but production was less.

#### **Trends observed/ Conclusion:**

The yield reduction was observed of 100 kg but the overall saving was of Rs 9,120 which was more than chemical farming even with less production. Shri Prabhakar Deotale felt that he was more confident for increasing his acerage of Brinjal from coming season based on the results observed. The villagers are closely observing the initiative taken by Shri Prabhakar Deotale and developing positive opinions which will motivate them for undertaking organic farming for their crops including Brinjal.

#### **Special awareness efforts:**

Prabhakarrao Deotale is also a good poem composer and singer. He has composed Marathi songs about hazardous effects of chemical farming which he learnt through RPL training. Through singing with the help of his colleagues, he explained the benefits of organic farming and various diseases caused by chemical farming to many peoples of surrounding areas.

## Cultivation practice of Organic (chemical free) and Chemical farming:

Farmer Name	Prabhakarrao Deotale				
Village	Nandora, Dist. Wardha	, Maharashtra			
Crop	Brinjal	Brinjal			
Variety	Harshal (Ankur)	Harshal (Ankur)			
Area	0.50 Acre (0.20 Hect.)				
Sowing/Harvest	July / September onwar	rds			
Description	Organic	Cost	Chemical	Cost	
Seed Tratment	Beeja amrut	100	Thiram	70	
Field Preparation	Ploughing, Levelling, Compost mixing	1500	Ploughing, Levelling, Compost mixing	1500	
Transplanting	By Manually	800	By Manually	800	
Nutrient Management	Compost, Panch-gavya, Ghanamrut				
after 10 days of transplanting	400	Urea DAP Potash	1200		
Disease control	Neem oil, Dashpar- ni(@15 ltr.)	300	Carbendazim	700	
Fungicide	Dashparni(@15 ltr.)	300	Mancozeb	750	
For Shining	Panchgavya (1 times /50ltr.) (45 days after transplanting)	300	Streptocycline	700	
Pest Control	Neem oil, Dashparni (@15ltr.)	300	Chlocyperus, Ema- mectin benzoate	900	
Irrigation	Furrow	0	Furrow	0	
Plant Height	70 to 75 cm	0	80 to 85 cm	0	
Harvesting	Hand Picking	4,500	Hand Picking	5,000	
Input Cost	Total	8,500		11,620	
Yield/Quintal	90		100		
Average Price/kg	40		30		
Yield Value(Rs.)	36,000		30,000		
Net Profit	36,000 - 8,500	27,500	30,000 - 11,620	18,380	
Organic VS Chemical	27,500 – 18,380 9,120 (Net profit Organic Farming)				

### Case Study of Ajay Kumar Sahare,

#### District- Berghat, Madhya Pradesh

Mr. Ajay Kumar Sahare is a progressive farmer from village Daudivada of teh-berghat district. I have been taking up the path of organic farming since 2003. I have taken training in innovation agriculture and organic agriculture from Jawaharlal Agricultural University, Jabalpur and Agricultural Science Center, Seoni. And at the same time, I also received training on organic farming under Patanjali Krishak Samridhi Yojana, which made me more interested to do organic farming as Patanjali is looking forward to the interest of farmers under Pradhan Mantri Kaushal Vikas Yojana and I think so This step of Patanjali will bring a new hope in the lives of farmers.

Due to which the cost of our farming has decreased and production has increased, along with this, we have increased our annual income by paying attention to the Integrated farming and animal husbandry, poultry, fisheries, horticulture, and vegetable productivity. Our main crop is paddy, we have divided the paddy cultivation into two parts, seeds to eat, and fat paddy which we are selling in different forms and we are getting more income. I also provide inspiration for farming and income growth.

#### **Production efforts:**

The expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni. Ajay Kumar Sahare has started making compost, panchgavya and dashparni at home. For panchgavya he uses cow dung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1 st time spray panchgavya was done 15 days after transplanting and 2nd dose of panchgavya was applied after 45 days of transplanting. After use of panchgavya he noticed that the plant growth is good and plants are in a healthy condition. For pesticide and insecticides he has used dashparni. For dashparni preparation he used 10 different local/wild plants along with gaumutra and replaced pesticides/insecticides with dashparni.

#### **Marketing efforts:**

The marketing of the produce was done by using jute bags and labelling of the produce as chemical free and as a result the price realization was higher by approximately Rs.32 per kg & chemically treated paddy Rs.25 per kg. If farmers grow organic vegetables & paddy in large scale they gain high profit. The demand of vegetables like Potato, Tomato, Chilli, Capsicum, Cauliflower, Pea is in all season.

#### **Trends observed/ Conclusion:**

The yield reduction was observed to be 1600 kg but the overall saving was Rs10350 which is more than chemical farming even with low production. Ajay Kumar Sahare feels that he feels more confident to





increase his acerage of vegetables from coming season based on the results observed. The villagers are closely observing the initiative taken by Ajay Kumar Sahare and developing positive opinions that is likely to lead to action in their respective fields in coming season.

Farmer Name	Ajay Kumar Sahare				
Village	Doundiwara, Teh-berghat district, Madhya Pradesh				
Crop	Paddy				
Variety	Jira Shankar & Black Jira	ı			
Area	1 acer				
Sowing/Harvest	June/ Novmber onwards				
Description	Organic	Cost	Chemical	Cost	
Seed Tratment	Beeja amrut	0	Na	0	
Field Preparation	Ploughing, Levelling, Compost mixing	2500	Ploughing, Levelling, Compost mixing	2500	
Transplanting	Same	1500	Same	1500	
Nutrient Management	Compost, Panchgavya (once 50 Ltr.)	1000	Urea DAP potas	2000	
Disease control	Dashparni(15 ltr.)	0	Mancozeb +(1 kg)	1800	
Fungicide	Tricodarma , Shu- domonash	50	Zineb (500 gram)	500	
For Shining	Panchgavya (1 times /50ltr.) (45 days after transplanting)	100	Micro Nutrient 500 ml. par acer	600	
Pest Control	Neem oil (@1500 ml.) Par pump	0	Cypermethrin (100 ml.) par pump	900	
Irrigation	Tubewell, Natural rain Flood Method	500	Natural rain, Flood Method	0	
Harvesting	Handpicking	1500	Handpicking	1500	
Input Cost	Total	7,150		11,300	
Yield in kg	1600 kg.		1800 kg.		
Price/kg	32 rs./kg		25 rs./kg		
Yield Value(Rs.)	51,200		45,000		
Net Profit	51,200 - 7150	44,050	45,000 - 11,300	33,700	
Organic VS Chemical	44050 - 33,700		10,350 (Net profit)		

## Case Study of Mr. Shailesh Pardhi, District- Balaghat, Madhya Pradesh

Mr. Shailesh Pardhi S/o Mr. Muralidhar Pardhi is a progressive farmer from Khairlanji village, Mohgaon tehsil, Balaghat District (MP). He believes that after receiving training on organic farming from Patanjali Krishak Samridhi Yojana, he started organic farming on the basis of training which gave him a new energy in life because before that His farming was directionless. After training, he learned what is the crop cycle? and what are its benefits from it, now he currently implemented the crop cycle in his field. According to this farming system, they get parallel income throughout the year, and their economic condition is strengthening. Along with this, Mr. Shailesh Pardhi is currently preparing advanced varieties of mangoes which are main (Dushari, Langra etc.) and with it- Along with this, he has also planted lime plants on some part of the land, doing mixed organic farming of arhar and paddy in kharif season. In rabi he grows gram, wheat and mustard. He is also providing training to the local farmers in his farm. Currently, they have freed their land from all the chemicals and are using only organic fertilizers which benefited them a lot from the previous traditional crop. Today, the value of organic products is higher than that of chemical products, therefore, he is doing community based organic farming and also forming an organic farming group.

So that he can get more profit by selling his crops in good price in big organic markets so that now, he is able to sell his agricultural produce in inter-state / adjoining districts. He has made a good profit in this Rabi season at a low cost by doing organic farming.

#### **Production efforts:**

The expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni. Shailesh Pardhi has started making compost, panchgavya and dashparni at home. For panchgavya he uses cowdung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1 st time spray panchgavya was done 15 days after transplanting and 2nd dose of panchgavya was applied after 45 days of transplanting. After use of panchgavya he noticed that the plant growth is good and plants are in a healthy condition. For pesticide and insecticides he has used dashparni. For dashparni preparation he used 10 different local/wild plants along with gaumutra and replaced pesticides/insecticides with dashparni.

#### **Marketing efforts:**

The marketing of the produce was done by using jute bags and labelling of the produce as chemical free and as a result the price realization was higher by approximately Rs.40 per kg & chemically treated paddy





Rs.25 per kg. If farmers grow organic vegetables & paddy in large scale they gain high profit. The demand of vegetables like Potato, Tomato, Chilli, Capsicum, Cauliflower, Pea in all season & he grow various variety of mangoes for more profit.

#### Trends observed/ Conclusion:

The yield reduction was observed to be 2,500 kg but the overall saving was Rs. 35,150 which is more than chemical farming even with low production. Shailesh Pardhi feels that he feels more confident to increase his acerage of vegetables from coming season based on the results observed. The villagers are closely observing the initiative taken by Shailesh Pardhi and developing positive opinions that is likely to lead to action in their respective fields in coming season.

Farmer Name	Shailesh Pardhi				
Village	Mohgaon	Mohgaon			
Crop	Paddy				
Variety	Vishnubhog & jaishree Ram				
Area	1 acer				
Sowing/Harvest	June/ Novmber onwards				
Description	Organic	Cost	Chemical	Cost	
Seed Tratment	Beeja amrut	0	Na	0	
Field Preparation	Ploughing, Levelling, Compost mixing	3000	Ploughing, Levelling, Compost mixing	3000	
Transplanting	Same	2000	Same	2000	
Nutrient Management	Compost, Panchgavya (once 50 Ltr.) after 15 days after transplanting	1000	Urea DAP	2500	
Disease control	Dashparni(15 ltr.)	(15 ltr.) 0 Mancozeb +(1 kg)		1800	
Fungicide	Tricodarma, Shudomonash	50	Zineb (500 gram)	500	
For Shining	Panchgavya (1 times /50ltr.) (45 days after transplanting)	100	Salfar ,Potash & Streptocycline	600	
Pest Control	Neem oil (@1500 ml.) Par pump & Dashparni(151tr)	0	Cypermethrin (100 ml.) par pump	900	
Irrigation	Natural rain	0	Natural rain	0	
Plant Height	3 to 3.5 Feet	0	3.5 to 4 Feet	0	
Harvesting	Handpicking	1500	Handpicking	1500	
Input Cost	Total	7,650		12,800	
Yield/100m2/Kg	2500 kg.		2800 kg.		
Price/kg	40 rs./kg		25 rs./kg		
Yield Value(Rs.)	1,00,000		70,000		
Net Profit	1,00000 - 7650	92,350	70,000 - 12,800	57,200	
Organic VS Chemical	92,350- 57,200	35,150 (N	et profit)		

## Case Study of Mr. Ram Krishna Raghuwanshi, District- Hoshangabad, Madhya Pradesh

The progressive farmer from Hoshangabad district Mr. Ram Krishna Raghuwanshi has been benefited from this training by the cultivation of Organic Moringa (Munga/Sahjan) in the course of this program. According to him, this training is much more effective. During the discussion with Ramkrshna Ji, he shared his personal experiences of community based Organic Moringa cultivation. Now, he has developed different organic cropping models and established the Farm Lab in his own farm under the Patanjali Krishak Samridhi program and applied the multi layer cropping pattern for organic Moringa cultivation. Several farmers and visitors have been visited his farm lab and model. Apart from this, he has applying of 3G and 4G cutting pattern on Moringa crops. According to him Moringa is magic crop which gives much more money from the other crop with minimum time and this crop has less damage probability during the adverse condition of the climate. Before he meets to patanjali, his crop is only traditional; hence he didn't got proper income. After that he joined to patanjali krishak samridhhi yojna and got training of jaivik kheti. While training session information was provided according to his land and climate, drum stick crop is beneficial. After attend training session he grown up drum stick as totally organic. Following officers visited his field, Shri Sanjay Pathak SDO at agriculture department, Shri Hari om Raghuwanshi Gram Sewak, Also visited SDM of seoni (Malwa) and inspection of crop of moringo and discussed the road map briefly. Now a days he got much more benefit from previous traditional crop. Patanjali provides a very good market linkage to this community based Organic Moringa farming. Now, he is able to sell his agricultural produces at Inter-state/ adjoining state. Now he is earned 2 lakh from last 60 days.

#### **Production efforts:**

The expense on nutrients and pesticides was reduced by using Panchgavya and Dashparni. Shri Ram-krishna Raghuwanshi has started making compost, panchgavya and dashparni at home. For panchgavya he uses cowdung, cow urine, cow desi ghee, curd, gur and natural water. He uses Panchgavya in field twice. 1 st time spray panchgavya was done 15 days after transplanting and 2nd dose of panchgavya was applied after 45 days of transplanting. After use of panchgavya he noticed that the plant growth is good and plants are in a healthy condition. For pesticide and insecticides he has used dashparni. For dashparni preparation he used 10 different local/wild plants along with gaumutra and replaced pesticides/insecticides with dashparni.

#### **Marketing efforts:**

The marketing of the produce was done by using small vegetables bags and labeling of the produce as chemical free and as a result the price realization was higher by approximately Rs.20 per kg. These amount





per kg is for organic but in market Chemical used products are available is Rs.10 to 50 per kg. If farmers grow organic vegetables in large scale they gain high profit. The demand of vegetables like Potato, Tomato, Chilli, Capsicum, Cauliflower, Pea is in all season. In every Sunday, organic market take place in hoshangabad.

Farmer Name	Mr. Ram Krishna Raghuwanshi			
Village	Nirkhee, Hoshangabad district, M	adhya Prad	esh	
Crop	Drumstick			
Variety	RH01+			
Area	1 Acer			
Sowing/Harvest	March/May onwards			
Description	Organic	Cost	Chemical	Cost
Seed Tratment	Beeja amrut	0	Na	0
Field Preparation	Ploughing, Levelling, Compost mixing	10,000	Ploughing, Levelling, Compost mixing	10,000
Transplanting	Same	21,000	Same	21,000
Nutrient Management	Compost, Panchgavya, Jivamrit (once 50 Ltr.) after 15 days after transplanting	32,000	No	32,000
Disease control	Neem oil Dashparni(15 ltr.)	600	Dipel 50 ml. par pump	500
Fungicide	Trichoderma & Dashparni	200	NO	0
For Shining	Panchgavya (1 times /50ltr.) (45 days after transplanting)	100	No	0
Pest Control	Neem oil & Dashparni (@15ltr.)	600	No	0
Irrigation	Drip irrigation & Natural rain	30,000	Natural rain	0
Plant Height	7.5 to 8 Feet	0	10 to 12 Feet	0
Harvesting	Handpicking	14,000	Handpicking	14000
Input Cost	Total	108,500		77,500
Yield/Per Acre/Kg	7,000 kg		12,000	
Price/kg	50		20	
Yield Value(Rs.)	3,50,000		2,40,000	
Net Profit	3,50,000 - 108,500	241,500	2,40,000 - 77,500	162,500
Organic VS Chemical	241,500 – 162,500 79,000 (Net profit)			

#### **Trends observed/ Conclusion:**

The yield increase was observed to be 7000 kg but the overall saving was Rs 79000 which is more than chemical farming even with low production. Shri Ramkrishna Raghuwanshi feels that he feels more confident to increase his acreage of vegetables from coming season based on the results observed. The villagers are closely observing the initiative taken by Shri Ramkrishna Raghuwanshi and developing positive opinions that is likely to lead to action in their respective fields in coming season.

## Success Story of Amit Kumar, District-Fazilka, Punjab

Punjab State especially Malwa zone is reeling under the excessive use of Pesticides, Fungicides, Weedicides and Chemical Fertilizers at a very high and alarming rate than the recommended doses. This has resulted into the depletion of underground water table, highly polluted sub surface water and as per one report 131 Blocks of Punjab, the water is in the Red Zone which is not fit for either human consumption, crops & cattle populations. In the present scenario, there is a need of shifting from inorganic to organic cultivation crops. To cope up with the situation, Patanjali Bio Research Institute (PBRI), a sister concern of Patanjali Yogpeeth Haridwar has stepped in by starting a project namely, the Patanjali Farmer Samridhi Programme (PFSP) in collaboration with Agriculture Skill Council of India (ASCI), National Skill Development Corporation (NSDC) & Government of India, which is an unique approach of training the farmers into organic farming. This practical oriented farmers training in organic growing has resulted in providing technical knowledge skill and practical insight to the system of organic growing. These farmers are now well versed in the methodology involved in converting the ordinary stuff to organic fertilizers like Jeev Amrut, compost making, verm compost, vermi wash and other bio-fertilizers. These farmers are also involving the nearby farmers and new links have been established with the Government functionaries, buyers, input suppliers and other stakeholders.

One such farmer namely Sh. Amit Kumar of Village Chak Panniwala, Tehsil Jalalabad, District Fazilka, Punjab with a small holding of 5 Acre, took the advantage of the project Patanjali Farmers Samridhi Programme and became a Trainer Farmer. He has already trained 4 batches of RPL training of Organic Grower to farmers in his vicinity and became a household name in Jalalabad Tehsil. Although, he was cultivating the best varieties of Basmati Rice and Wheat organically for past 8 years but his enrichments through this programme has resulted into tremendous popularity of organic cultivation of these crops. He has gained expertise in preparing his own organic products like jeev amrut, panchgavya, vermi compost etc. which has benefited the Chak Panniwala Village to a large extent. The total earning of Basmati crop from 1 acre was approx. Rs. 3,100/quintal in 2017 but after applying the Patanjali Prom, Patanjali Khad, jeev amrut, panchgavya etc, the results were extremely pleasing which helped him to sell out his same variety of Basmati crop at Rs. 6,500/quintal in 2018.

As a leader of Village Chak Panniwala in organic farming and also as a motivational force, 'He was instrumental in making the farmers who were trained in 4 batches by him to take an oath that none of them will burn the paddy straw in their fields which is one of the burning issue of Punjab.

Encouraged by his leadership qualities, the PBRI has also selected him for the multiplication of new strains of Basmati Rice and also bought his 5 acre of land under the seed production. As the farmers of his village also trust on Amit Kumar's dedication he has become a torch bearer in organic farming.

## Brief Description - Cultivation Practice of Organic Inputs Vs Chemical Inputs In Amit Kumar's Farm Lab

Farmer name	Amit kumar	Amit kumar			
Village	Chak panniwala, tehsil jalalabad, district fazilka, punjab				
Crop	Paddy				
Variety	Basmati 1121				
Area	1 acre				
Sowing/harvest	Jun-july / oct-nov				
Description	Organic	Cost	Chemical	Cost	
Seed treatment	Beej amrut	Nil	Streptocycline	150	
Field preparation	Ploughing, levelling, compost mixing	1500	Ploughing, levelling, compost mixing	1500	
Transplanting	Same	3000	Same	3000	
Nutrient management	Compost, fym	100	Dap, urea	2000	
Disease control	Cow urine	0	No	Nil	
Fungicide	Trichoderma	500	Trichoderma	500	
Weedicide	Hand weeding	2000	Pretichalor	700	
Irrigation	Tubewell	2000	Tubewell	2000	
Plant height	4 to 4.5 ft	Nil	3 to 4 ft	Nil	
Harvesting	Harvester	3000	Harvester	3000	
Input cost	Total	12,100	Total	12,850	
Price/q		6500		2800	
Yield value (rs.)		78,000		56,000	
Net profit		65,900		43,150	
Organic vs chemical	Organic vs chemical 65,900-43,150 22,750 (net profit vs chemical farming)				





## Case Study of Hansraj Meena, District- Jhalawar, Rajasthan

Hansraj Meena resident of Village Parpati in Jhalawar district of Rajasthan. Owns just over an 5 acre of land which is irrigated by well. He is Intermediate. In his family he has Mother, Wife and 3 sons. The crops grown by him in Kharif season are Soyabean, Maize,acid-lime, Mandarine and in the Rabi season the main crops are Redgram, wheat, tomato, gram, onion, and chilli. After participating in the training of trainer program organized by PBRI at the Punjab National Bank Farmer training centre, Jhalarapatan, Rajasthan. He was motivated from an Organic Farmer Shri Hukum chand Patidar (Padamshree Adwaree) and he wants a chemical free food for his family, society and eco friendly environment. He observed that at present the situation of farming especially in rural areas farmer have little access to knowledge about farming practices, land management, and marketing of organic produce. He says that Patanjali Farmer Samriddhi Programme was disseminating organic farming and marketing knowledge to small scale farmers in rural areas of Rajasthan. The course covers all organic farming techniques. And he knows that the organic produce have more value as compared to Inorganic or chemical produce.

#### Cost of Lime pickle

S.R No	Ingredient	Quantity (Grams)	Rate Rs / Kg	Total cost
1	Lime	1000	110	110
2	Oil (Soyabean)	300	95	32
3	Fennel	50	120	6
4	Fenugreek	50	80	4
5	Turmeric	25	250	6
6	Salt	200	16	4
7	Blackpapper	15	800	15
8	Red chilli	20	240	5
9	Black raida	50	80	4
10	Plastic jar	1	20	20
11	Hing	5	1600	10
12	Labour	1	500 pr day	80
	Total cost			294

#### **Production efforts:**

Shri Hansraj meena says that the course was very useful for organic farming, the course cover all organic farming techniques. And he knows that the organic produce have more value as compare to Inorganic or chemical produce. He observed that at present the situation of farming we use more chemical fertilizers and Pesticides for cultivation of crops specially in fruit plants. These chemicals create a hazardous effect on human being as well as our environment.

#### **Marketing efforts:**

He was also motivated to grow his produce through chemical free and organic methods in his own farm so that he could train the nearby farmers on organic farming. He initiated organic farming 4-5 years ago but after this training he started making of lime pickle and sell this pickle through his whatsapp group and other marketing techniques. Before this training he don't know about online marketing or whatsapp. He also develops a Farmer Producer Organisation (i.e. Bindayagi Jaivik Krishak Club) (FPO). In this FPO he add his RPL trainees.

Shri Hansraj Meena have 50 lime plants in his Lime orchard and gets 500kg yield/annum, He sell around 450kg lime at 80 kg lime in open market and remaining 50 kg he use for pickle making. He use only compost, vermicompost and Jivaamrut for Nutrients and for insecticide he is use Devdooth, Bhramastra and Dashparni in his lime orchard.

```
I kg lime pickle cost is = 294 / kg then total pickle is - 20 * 294 = 5880/
Total cost of 20 kg pickle = 5880
Total lime pickle sale = 20 kg
Market price of 1 kg lime pickle = 450 / kg
20 * 450 = 9000
Profit = 3120 /-
```

The marketing of the produce was done from his farmers whatsapp group and through his FPO (Bindayagi Jaivik Krishak Club). He packs ready limepickle in glass jar for marketing and sold his limepickle at 450 k.g.

#### Trends observed/ conclusion

Shri. Hansraj meena feels more confident to increase his income. Through FPO (Bindayagi Jaivik Krishak Club) he creates a potential market for his farmers and villagers and decreases the dependency on open market. He creates a positive vibes for organic farming and motivates other farmers to be closely observing the initiative taken by Shri Hansraj Meena and developing positive opinions that is likely to lead to action in their respective fields in coming season. He wants to inspire the farming community to stopchemical farming for better health and better crop value. He shares a message for farmers i.e. Sow organic, feed organic and harvest organic to get health as well as money.





# Success Story of K Mahalingam District- Shivaneni Gudem Nalgonda, Telangana

K Mahalingam s/o K Muttaiah, Shivaneni gudem, Chityala and he cultivates mainly paddy. He attended 10 days training programme of Organic Grower organized by PBRI. Subsequently, He started growing paddy crop chemical free with organic method only. He has also motivated other farmers of his village to grow chemical free crop. Sri. Mahalingam started his own demo plot of Paddy in 1 – acre under pure Organic farming methods and also cultivated another Acre of Paddy under chemical fertilizers as a comparison crop. He started showing the comparisons to the surrounding farmers, the difference in the cost of cultivation, health of the crop, quality parameters, yields and value added qualities of Organic produce with the support of PBRI. Finally, he stood as a pioneer successful Organic farmer in his village and motivated large number of fellow farmers.

According to Sri Mahalingam, his income had gone high due to lowering the production costs and selling of good quality organic products as a farmer. The cost of medicines in his family was also reduced and he has gained popularity for his profession. Often people come to visit him for solving different agricultural problems as he could analyze the soil test results, could show/control insect-pests by using cattle dung/urine/ neem extracts etc. His example is followed by many in the locality as people are convinced and encouraged with his techniques of production.

#### **Marketing efforts:**

As per the farm lab and control plot data, the yields are less in Organic cultivation when compared to Inorganic controlled plot. Due to the high expenditure towards Inorganic fertilizer and pest control chemical is recorded high and the market rates are very low i.e. Rs. 1100/- per 70 kg bag at field level, whereas in organic paddy field, the production is low (18 Quintals) when compared to control plot. But, the value added Rice per Organic paddy is high i.e. Rs. 1400/- per 70 kg bag at field level. In addition the cost of cultivation in Inorganic Agriculture as recorded high (Rs. 38350/-) when compared to Organic plot (Rs. 33100/-).

#### Trends observed/ Conclusion:

The yield reduction was observed in organic farming but the overall saving was Rs. 5250 which was more than chemical farming even with less production. The local farmers have been observing the farm lab since beginning and appreciated the processes followed by K Mahalingam and could realise the value added







appreciation price to the Organic produces, low cost of cultivation and the profits per Acre made by him. Finally they all accepted the benefits of Organic farming methods which is showing impact on crop standing, it's health, quality of grain, atmosphere and value added rice benefits and favoured for conversion of thousands into Organic farming in a phased manner from next season onwards and decided to be part of their Gram Vikas in the coming years.

### The cultivation economics of organic crops of Mahalingam

Farmer Name	Mahalingam					
Village, District, State	S/O K Muttaiah,1-33, Shivaneni Gudem,Chityala, Mandalam, Shivaneni Gudem Nalgonda, Telangana-508114					
Crop	Paddy					
Area	1 acres					
Crop season	Kharif, 2019	Charif, 2019				
Items	Organic	Organic Cost Inorganic Cost				
seeds	Paddy, IIRR93R	1000	MTU 7029	1000		
Seed treatment	Trycoderma+ Cow Urine	100	Dithene M-45	250		
Field preparations	Ploughing & Puddling	3000	Ploughing & Puddling	3000		
Nursery		400		600		
Basel Fertilizer application	4 tonnes compost mixed Try- coderma, PSB, KNB, flores- cence, Poshak & Promo-40 kg, Neem cake-10 kg	3300	2 tonnes FYM, SSP-125 kg, Potash-40 kg	5000		
Transplantation		5000		5000		
Weeding	Hand weeding	5500	Weedicide + hand weeding	4500		
Top dressing	Khad - 40 kg	800	Urea	1600		
Pest-disease control	Panchagavya & Neem Oil	600	3G granules-3 kg, pesticides	4200		
Irrigation	Rain fed		Rain fed			
Harvesting & Processing	Hand	9000	Hand	9000		
Transportation		2000		2000		
Other expenses		2400		2200		
Total Cost		33100		38350		
Yield	18 quintals, @ 3000	54000	30 quintals, @ 1400	43200		
Straw yield		2500	Straw yield	2500		
Total Cost		56500	Total Cost	45200		
Net profit	56500-33100	23,400	45200-39350	6850		
Net profit (Organic - Inorganic) 23400 - 6850			16550/-			

## Case Study of Diwan Singh Bisht, District- Nainital, Uttarakhand

Diwan Singh Bisht is a resident of Gajar Village, Nainital district of Uttarakhand having 2.5 acre of land and half of which is irrigated. Generally he grows French bean, Finger Millet, Horse gram, Cholai, Turmeric crops in his land. He observed that, at present situation of farming, especially in rural areas farmers have limited knowledge about farming practices, land management, and marketing of organic produce.

Diwan Singh Bisht says that Patanjali Farmer Samriddhi Programme was disseminating organic farming and marketing knowledge to small scale farmers in rural areas of Uttrakhand. The course covers all organic farming techniques. And he knows that the organic produce have more value as compare to Inorganic or chemical produce.

After participating in the training of trainer program organized by PBRI at the GB Pant University of Agriculture and Technology during the month of January 2019 he was able to understand about organic certification and marketing of organic produce. After this training he motivated farmers to grow their products through chemical free and organic methods in his farms. Farmers are able to make organic manure and organic pesticides at home.

This certificate valid for below mentioned crops and area:

Crops valid in PGS INDIA GREEN Certificate					
S.No	Crops/Produces	Area (Ha.)	Quantity (q.)		
1	Finger Millet(Ragi/Mandua)	0.1	45		
2	Horse Gram(Kulthi/Kultha)	0.1	40		
3	French Bean (Rajma)	0.1	30		
4	Soyabean (Bhat)	0.1	20		

He aware about organic certification process and marketing of organic produce. After this training he complete his PGS INDIA GREEN Certificate (Member code-140549) and registration under food safety and standard act, 2000 (Reg. No.22620038000006) with the help of Uttrakhand Organic Commodity Board (UOCB).

After completion of documentations he started trading with organic farmers from village Majheda of District Nainital.

#### **Profit to Farmers**

	Diwan Singh Crop Purchase rate from farmers					
S.NO Crops/Produces Local trader Diwan Singh Farmers Profit price/per k.g. Buying price/kg (Rs./kg)						
1	Horse Gram(Kulthi/Kultha)	80-100	100-120	20-40		
2	French Bean (Rajma)	100-110	130-150	30-40		
3	Soyabean (Bhat)	40-45	50-60	10-15		

#### Profit Shri Diwan Singh

	Diwan Singh Crop Purchase rate from farmers						
S.NO	Crops/Produces Diwan Singh Diwan Singh Profit(Rs./kg)						
		Purchase Price/Kg	Trading Price/Kg				
1	Horse Gram(Kulthi/Kultha)	100-120	170	50-70			
2	French Bean (Rajma)	130-150	180	30-50			
3	Soyabean (Bhat)	50-60	80	20-30			

<sup>\*</sup>Note- Above mentioned table shows Diwan Singh profit without input and marketing expenses.

Diwan Singh purchase unfinished produce from farmers home. After purchasing the crop/produce processes the produce like cleaning, grading, packing and marketing. Uttarakhand Organic Commodity Board helped him to provide with packing material for marketing of the produce.

Diwan singh was trained as a trainer farmer by Patanjali Farmer Samriddhi programme under PBRI at the GB Pant University of Agriculture and Technology during the month of January 2019. After his training patanjali support him for RPL training. For this training Patanjali gave him Essential training equipments, Soil testing kit (Dharti ka Doctor) and Financial support to him. Patanjali also provide bio-fertilizer for his farm lab. PBRI also provide him technical guidance for cultivation.

Diwan Singh feels that he feels more confident to increase his income along with farmers. The Farmers feels very glad because they sell their produces directly from home and gain high income from their organic produce. The initiative taken by Diwan Singh has developed positive opinions which is likely to lead to action in their respective fields in coming season.

#### His message to the other aspirers:

Diwan singh wants to inspire all farmers community to stope chemical farming and for better health and good crop value and also suggest for Organic certification of their crop for gain high income. He share a message for farmers to sow organic, feed organic and harvest organic to get health as well as money.

## Case Study of Sukhnandan, District- Jhansi, Uttar Pradesh

The progressive farmers Mr. Sukhnandan is a resident of Magarwara Village in Jhansi district from Uttar Pradesh. He holds 3 acre land which is slightly irrigated. He is an Intermediate and dependent on farming for his economy. Earlier he use to grow groundnut where he earned R.s. 15000- 20000 in one acre, but after getting trained as organic trainer he started growing Tulsi, where he got 25-30 thousand rupees in per acre of land. He is living in the Bundelkhand region and Because of the low rainfall; this comes under the rainfed region. Many times farmers get affected by the drought and their crop productivity are severely affected. He says that he was very much interested in Organic Farming because he heard that Organic farming can reduce the water demand of the crop and helps in eliminating Disease. After he got trained he learnt following skills - 1. Mixed farming, 2. Farming of the Medicinal crops and Herbs like Tulsi and 3. Preparation and application of the Bio pesticide and Bio Fertilizers.

After getting trained by Patanjali Bio Research Institute he was very motivated to know about the benefits of the Herbs and Medicinal crops. As he was motivated to do organic farming he grows Tulsi by the organic method. He said that he applies Prom which is provided by the Patanjali and Jivamrit made by him in the initial stage of Tulsi crop. After the Application of these Bio fertilizers he saw that the vegetative growth and shining of the tulsi leaves has been increased. He said he got proper guidance by the Patanjali staff along with the financial, Technical and motivational support. He also got the bio fertilizer and soil testing kit from Patanjali.

He starts working on the mixed farming, he grows Chilli, Brinjal, Bottle gourd, Potato, Papaya in one acre land and he is very happy to see his crop. He said directly and indirectly crops benefits to each other. His Tulasi crop is ready to harvest and he said that the plant height is 3-4 feet whereas the others farmers Tulasi plant height is 2-3 feet. He accepts that he is going to get good price of his crop.

His message to the other aspirers: If farmer starts to do Organic farming definitely he can get good price and can reduce drought impact on their crop.

### The cultivation practices of organic and inorganic followed:





Farmer Name	Mr. Sukhnandan						
Village, District, State	Village - Magarwara Block- Bangra, Dist- Jhansi UP						
Crop	Tulsi, Variety - Krishna						
Area	1 acres						
Crop season	Kharif, 2019	Kharif, 2019					
Items	Organic	Cost	Inorganic	Cost			
Seed	Krishna	500	Krishna	500			
Seed treatment	Cow urine	-	Bavistin	50			
Field preparation	Ploughing & puddling	2000	Ploughing & puddling	2000			
Transplanting	Manually	1000	Manually	1000			
Nutrient applied	FYM	3000	DAP, Urea, Potash & Zinc	2000			
Weed control	Hand weeding	1200	Pretilachlor	500			
Disease control	-	-	-	-			
Fungicide used	Trichoderma	100	Carbendazim	200			
Pest control	-	-	chloropyriphos	500			
Irrigation applied	Rain and tubewell (1)	500	Rain and tubewell (2)	1000			
Harvesting	Manually	1000	Manually	1000			
Transportation Charges	Field to market	500	Field to market	500			
Input cost (Rs)	8200 9250						
Leaves/Grain yield (qt/ha)	350 Kg @100	35000	270 Kg @100	27000			
Straw yield (qt/ha)	50 Kg @50	2500	60 Kg @50	3000			
Total income (Rs.)		37500		30000			
Net profit (Rs.)	37500-8200 29300 30000-9250 20750						



## Vermi Compost Production by Veer Singh Rajput District- Jhansi, Uttar Pradesh

In the drought struck region of Bundelkhand the Patanjali Farmer Samridhi Programme being supported by the National Skill Development Corporation and the Agricultural Skill Council of India is being implemented by the Patanjali Bio Research Institute from past six months. The Bundelkhand region has consistently faced drought and during this year also it has received just about the quarter of the rain so far.

The Patanjali Farmer Samriddhi Programme follows a unique approach with Trainer Farmers training the nearby farmers in Organic Farming. By end of July 2019, nearly 4000 farmers have been trained by 68 trainer farmers of which over 2600 have cleared the exams. The knowledge, skills and technical know-how imparted to the farmers seem to be benefitting the farmers who are gradually improving their farming practices and creating new links with stakeholders such as the government functionaries, buyers and input suppliers.

Most of the farmers of the Bundelkhand region have been growing traditional crops such as pulses and are gradually shifting to medicinal crops such as tulsi, ashwagandha, safed musli etc. which provide higher incomes and returns. Links with market players offering better prices are being identified and farmers are facilitated. Due to this the farmers have started benefiting and beginning to fetch 20-50% better prices for their products.

Vermi Compost Unit					
Investment					
S. N.	Discription	Qty	Rate	Amount	
1	Platform Construction (Unit ) onetime cost	10 M×6M		30000	
2	Vermi (one time cost)	5 Kg	500	2500	
3	Cow dung	500 Kg	2	1000	
Return					
S. N.	Discription	Qty	Rate	Amount	
4	Vermi compost (After 28 days)	200	0	2000	
5	1st weak	200	10	2000	
6	2nd weak	200	10	2000	
7	3rd weak	200	10	2000	
8	Total	8000			
9	2nd Month			8000	
10	3rd Month			8000	
11	4rt Month			8000	
12	5th Month			8000	

One such farmer Shri Veer Singh Rajput who has gained from the technical skills imparted by Patanjali has expanded market linkages for his vermi-composting unit. While earlier he was receiving Rs. One lakh from the sale of worms now he is earning Rs. 2 lakh from this activity alone. The farm of Shri Bhanu Prakash Rajput was recently visited by the District Magistrate and other officials who appreciated the efforts made by him for production and sale of vermi-compost.

# Case study of Anil Kumar Singh at Dayalpur District- Chandauli, Uttar Pradesh

Anil Kumar Singh S/O Sri Hari Nath Singh aged about 50 years, completed his M.A., from Varanasi UP, who has been inspired by a call from Param Pujyaniya Swami Ramdev ji and Acharya Sri Balkrishna ji, has attended the mega Organic farmers meeting during Oct-2018. He has been associated as a Trainer Farmer with the Patanjali Krishak Samridhi Program since last couple of months which is being conducted under the guidance of National Skill-Development Corporation (NSDC), Ministry of Skill-Development and Entrepreneurs (MSDE) and Agricultural Council of India (ASCI). Under this, he was given training of Organic Grower and Group Farming Practitioner. He subsequently motivated the farmers near his villages and trained them towards organic farming. After going through his contribution among the farmers community, it is observed that he successfully documented the practical and commercial aspects of Organic bio fertilizers and bio pesticide products among the villagers.

Sri Anil Kumar Singh Trainer Farmer is most progressive and innovative farmer of Chandauli district. He is a member of 'Chandauli Kala chawal Krishak Samiti' operated by Chandauli district administration. He has registered NGO called 'Neelam Jaivic Ausadhi Udyan' where Black rice variety Chak Hao from Manipur is being popularized along with other Jaivik Produce. Variety Chak Hao is a fortified variety with high medicinal value. It possesses anthocynin anti oxidant, cholesterol phytochemical reduction ability and improved digestion ability. In 100 g milled black Rice; Carbohydrate 34, Protein 8.7, Iron 3.5, fiber 4.9 and high anti oxidant is available. Keeping in view of these qualities, this variety was selected for Organic cultivation. Jeera 32 is a short grain scented Rice variety which is one of the most popular local variety of the area. This variety was taken for control plot. He has successfully implemented a 'Jaivik Sabji Booking Yojna' to cater the need of organic vegetable to its members.

Mr. Anil Kumar Singh started his own demo plot of Paddy in 1- acre under pure Organic farming methods and also cultivated another Acre of Paddy under chemical fertilizers as a comparison crop. He has successfully conducted the Farm Lab experiment with two varieties viz Black Rice (Chak Hao) under organic and Jeera 32 under normal inorganic condition. The details of net income during Kharif Season 2019 are given in the table.

#### Marketing:

Yield data obtained indicated that the plot under Organic cultivation gave higher yield (12 q/acre) than control plot inorganic plot (10q/acre). Variety Jeera 32 used under controlled plot suffered from false smut disease while variety Black Rice (Chak Hao) was free from diseases and insect pest damage. Beside Organic produce it possesses medicinal importance and was sold on premium price at Rs Rs200 /kg and control plot yield fetch relatively low price of Rs 30/kg. The cost of cultivation in Organic plot recorded low (Rs. 23725/acre) as compared to control inorganic plot (Rs. 26700/acre).

The particulars cost of cultivation for Organic & Inorganic and Cost Benefits Ratio

Name	Sri Anil Kumar Singh					
Village	Dayalpur					
District, State	Chandauli, Uttar Pradesh	Chandauli, Uttar Pradesh				
Crop/ Land area	Paddy/ 1 Acre (Organic) +	Paddy/ 1 Acre (Organic) + 1 Acre (Inorganic)				
Crop season	Kariff-2019	Cariff-2019				
Items	Organic	Cost	Inorganic	Cost		
Seeds	Paddy , Black Rice Chak Hao @Rs 300/kg	900	Jeera 32 @ Rs60/kg	600		
Seed treatment	Trycoderma+ Cow Urine	25	Carbendazim	100		
Field preparations	Land Preparation & Pud- dling	3000	Land Preparation & Puddling	3000		
Nursery		400		400		
Basel Fertilizer application	Green Manure, 1.5 tonnes compost, mixed Trycoderma, PSB, KNB, florescence, Poshak & Promo-40 kg,	2500	50 kg Urea, SSP-100 kg, Pot- ash-40 kg	3500		
Transplantation		3600		3600		
Weeding	Hand weeding	5000	Weedicide + hand weeding	4500		
Pest – disease control	Panchagavya & Neem Oil	800	3G granules – 3 kg, pesticides	3500		
Irrigation	Tubewell &cannel	1000	Tubewell &cannel	1000		
Harvesting & Processing	Manual by hand	5500	Manual by hand	5500		
Transportation		1000		1000		
Total Cost		23725		26700		
Yield	12 quintals, @ 200/kg	240000	12quintals, @ 3000	36000		
Straw yield		2500	Straw yield 2000	2500		
Total Income		242500	Total Income	38500		
Net profit	218775	11800				

Results revealed that Organic Produce of Black Rice Chak Hao fetched very high premium price of Rs 200/kg due to its medicinal value. Besides produce was uniform, healthy with bright grain colour, disease free and attractive. It was liked by surrounding farmers of Dayalpur Village. Farmers have shown the interest in Black Rice variety due to its high quality and medicinal importance.

He has prepared You Tube to demonstrate his Organic farming activities to stake holders. Initially he started with only 1 acres area to cultivate Black rice on his farm and subsequently plan to 6.5 acres during next kharif season. He got the premium price of his produce being sold as seed to the farmers @ Rs 300/kg in particular and Rs 200/kg in general for milling rice reported by him, it is anticipated that Chandauli district will be hub of this black rice in near future.

## Case study of Upendra Nagar, District- Bulandshahar, Uttar Pradesh

Upendra Nagar, S/o Late Shiv Shankar Dayal Nagar, aged about 48 years, completed his M.A., from Bulandshahar UP, who has been inspired by a call from Param Pujyaniya Swami Ramdev ji and Acharya Sri Balkrishna ji, has attended the mega Organic farmers meeting during Oct-2018. Subsequently he was qualified as an Organic Grower and GFP training and got registered at PBRI as Trainer Farmer. Upendra Nagar, Trainer Farmer, Moharsha, Bulandshahar has been honoured by State Deptt of Agriculture for his outstanding contribution in disseminating and awakening 350 farmers of surrounding village and is associated with Namami Gange Project. Under this project, he will be guiding and coordinating the organic Cultivation of large number of clusters of farmers in 36 villages of 50 km vicinity on the bank of Ganga River in Bulandshahar district. He is also shouldering the responsibility of social worker in different capacities including as representative of National news paper "Hindustan", member of maintenance, domestication, conservation of Deshi cows Committee "Gauraksha, Bulandshahar" and "Paryavaran Santulan va Jalvayu Suraksha Abhiyan", Bulandshahar.

Mr. Upendra Nagar started his own demo plot of Paddy in 1 – acre under pure Organic farming methods and also cultivated another Acre of Paddy under chemical fertilizers as a comparison crop.

He has successfully conducted the Farm Lab experiment with two varieties viz Pusa basmati 1509 under organic and Sugandha-5 under normal inorganic condition. The details of net income during Kharif Season 2019 are given below.

Yield data obtained indicated that the plot under Organic cultivation gave higher yield (18 q/acre) than control plot inorganic plot (16q/acre). Variety Sugandha-5 used under controlled plot suffered from false smut disease while variety Pusa basmati 1509 was free from diseases and insect pest damage. Beside Organic produce was sold on premium price @Rs 2900 /Q and control plot yield fetch relatively low price of Rs 2200. The cost of cultivation in Organic plot recorded low (Rs.26520 /acre) as compared to control inorganic plot (Rs.30250 /acre).

Results revealed that Organic Produce was uniform, healthy with bright grain colour, disease free and attractive. It was liked by surrounding farmers of Moharsa Village. Farmers have shown the interest in Organic cultivation which was free from chemical fertilizer and pesticide.

## The particulars cost of cultivation for Organic & Inorganic and Cost Benefit Ratio

Name	Sri Upendra Nagar					
Village	Moharsa					
District, State	Buland Shahar, Uttar Pradesh	Buland Shahar, Uttar Pradesh				
Crop/ Land area	Paddy/ 1 Acre (Organic) + 1 Acre	Paddy/ 1 Acre (Organic) + 1 Acre (Inorganic)				
Crop season	Kariff-2019					
Items	Organic	Organic Cost Inorganic (				
Seeds	Paddy, Pusa Basmati 1509	720	Shugandha 5	1000		
Seed treatment	Trycoderma+ Cow Urine	100	Carbendazim	150		
Field preparations	Land Preparation & Puddling	3000	Land Preparation & Puddling	3000		
Nursery		500		600		
Basel Fertilizer application	Green Manure, 1.5 tonnes compost, mixed Trycoderma, PSB, KNB, florescence, Poshak & Promo-40 kg,	3000	2 tonnes FYM, 100 kg Urea, SSP-125 kg, Pot- ash-40 kg	4500		
Transplantation		3500		3500		
Weeding	Hand weeding	5000	Weedicide + hand weeding	4500		
Pest - disease control	Panchagavya & Neem Oil	800	3G granules - 3 kg, pesticides	3500		
Irrigation	Tube well	1500	Tube well	1500		
Harvesting & Processing	Manual by hand	6400	Manual by hand	6500		
Transportation		2000		1500		
Total Cost		26520		30250		
Yield	18 quintals, @ 2900	52200	16 quintals, @ 2200	35200		
Straw yield		2000	Straw yield 2000	2000		
Total Income		54200	Total Income	37200		
Net profit	27680	6950				

# Case study of Ramesh Bachhar District- Nadia, West Bengal

Ramesh Bachhar resident of Village Patikabari, district Nadia, West Bengal has a small plot of land (10,000 square feet) of cultivable land. He was fed up with the chemical method of cultivation due to the increasing cost of chemical fertilizers and pesticides. Even the yield was not to the mark and he was desperate to try better way of cultivation. He is very thankful to Patanjali Farmer Samridhi Program under NSDC to teach and train him for an alternate and better method of cultivation. He undertook the twenty days training under Farmer trainer Asit Halder. He was very satisfied from the training and was so motivated that he started preparing the organic manure and pesticides under the guidance of Asit Halder and experts from PBRI, Haridwar.

Ramesh prepared Jibamrit, neem spray and enzyme with the local resources. There were negligible expenses compared to the chemical fertilizers and pesticides he used to buy earlier. He broadcasted Jibamrit during the soil/land preparation and also when the crop germinated. The crop was Chichingga(snake gourd). The variety was locally procured. The price of his organic snake gourd fetched him Rs. 2.00 more than the chemically grown crop.

### Cultivation practice of chemical free snake-gourd:

Ramesh Bachhar					
Patikabari					
Chichingga(snake-gourd)					
Local					
10,000 square feet					
March/June					
Organic	Cost	Chemical	Cost		
Ploughing,compost mix	3000		Rs.3000/-		
	600		Rs. 600/-		
Jaivk khad,FYM,Jibamrit	100	Urea,DAP	Rs. 300/-		
Neem extract spray	Own	Frotax	Rs. 200/-		
NA	Nil	Ridomil(200gm)	Rs. 380/-		
Enzyme	50	Bron 20+(250gm)	Rs. 115/-		
Cow urine, Neem spray	Nil	Bom e Gold(100ml)	Rs. 250/-		
Flat	200	Flat	Rs. 200/-		
Hand pick	300	Hand pick	Rs. 300/-		
	4250		Rs.5345/-		
1200 Kg		1300 Kg			
Rs. 12/Kg		Rs. 10/Kg			
Rs. 14,400/-		Rs. 13,000/-			
Rs. 14400 - Rs. 4250	10,150	Rs. 13000-Rs.5345	Rs.7655		
Net profit Organic Vs Isnorganic method 10,150 – 7655 =2495					
	Chichingga(snake-gourd)  Local  10,000 square feet  March/June  Organic  Ploughing,compost mix  Jaivk khad,FYM,Jibamrit Neem extract spray NA  Enzyme Cow urine, Neem spray Flat Hand pick  1200 Kg Rs. 12/Kg Rs. 14,400/- Rs. 14400 - Rs. 4250	Chichingga(snake-gourd)           Local           10,000 square feet           March/June           Cost           Ploughing,compost mix         3000           600         300         600           Jaivk khad,FYM,Jibamrit         100           Neem extract spray         Own           NA         Nil           Enzyme         50           Cow urine, Neem spray         Nil           Flat         200           Hand pick         300           4250           1200 Kg         Rs. 12/Kg           Rs. 14,400/-         Rs. 14,400/-           Rs. 14400 - Rs. 4250         10,150	Chichingga(snake-gourd)           Local         10,000 square feet           March/June           Cost         Chemical           Ploughing,compost mix         3000           600         Urea,DAP           Jaivk khad,FYM,Jibamrit         100         Urea,DAP           Neem extract spray         Own         Frotax           NA         Nil         Ridomil(200gm)           Enzyme         50         Bron 20+(250gm)           Cow urine, Neem spray         Nil         Bom e Gold(100ml)           Flat         200         Flat           Hand pick         300         Hand pick           1200 Kg         1300 Kg         Rs. 1300 Kg           Rs. 12/Kg         Rs. 10/Kg         Rs. 10/Kg           Rs. 14,400/-         Rs. 13,000/-         Rs. 13000-Rs.5345		

#### **Production efforts:**

The expense on the nutrient management and pest control was absolutely reduced by the use and production of organic manure, pesticide and enzymes from the local raw material resource available in his home. He used jaivik khad and jivamrit while preparing the soil/land and at the time of germination. The Bron 20+ was used at the time of flowering and fruiting. The Neem spray was sprayed at the flowering and fruiting stage. The growth was very good and the colour also improved.

#### Market feedback:

Ramesh fetched better price for his snake-gourd product due to its good colour and shine. The Higher price was given by the health conscious people who were looking for organically grown vegetables. Some of the customers encouraged Ramesh that he should always provide them with chemical-free vegetables at premium price.



## Case study of Smt. Pushpa Mondal, District- Parganas, West Bengal

Smt. Pushpa Mondal resident of village Andulgoria, Block Bhangar-1 in south 24 Parganas district of West Bengal owns just one bigha of cultivable land. She grows vegetables most of the time followed by mustard and maize in the rabi seasons. After participating in the Organic grower training conducted by Farmer trainer Joydev Biswas she was highly motivated to practice the Organic method of farming.

She immediately started preparing Jeevamrit and used it effectively in one bigha of land. She was determined to cultivate this summer season with the organic manure she had prepared what so may be the result. She applied the jeevamrit twice in her field (1600 square yard). Brinjal was grown in the organically prepared field and the harvest was far better than previous years. She sold the brinjals at the rate of Rs. 15/ - 20/- per Kg. The profit was twice as the previous years. Her cost of cultivation had become negligible due to the use of organic manure prepared from her own domestic resources.

#### Cultivation practice of chemical free brinjal:

Farmer Name	Smt. Pushpa Mondal				
Village	Andulgoria	Andulgoria			
Crop	Brinjal				
Area	1 bigha (14,400 square feet)				
Method and Organic man	ure used:				
Seed treatment	Beej amrit	No cost			
Field preparation	Ploughing, levelling compost mixing	Done by self	No cost		
Manure preparation	Jeev-amrit	Rs. 200.00			
Disease control	Neem spray	Own preparation	No cost		
Market-Price received	Rs. 15.00 - Rs. 20.00/Kg				
Expenses incurred through	Rs. 3500.00 per bigha				
chemical cultivation in					
earlier years					
Net profit this year(2019)	Twice the price of previous year				

#### Production methods, efforts and market response:

The expense on the manure and pesticide was absolutely reduced due to the use of Jeevamrit and home-made Neem spray. Smt. Pushpa Mondal has been preparing the manure and pesticide herself with her own resources. She observed that with the twice use of Jeevamrit in her field the soil condition improved and the brinjal crop plant were good and healthy and the harvest was also of good size. The problem of the pests/insects was taken care by the Neem spray prepared by fermenting neem leaves in cow urine. The brinjal

fetched good price when she claimed it to be organically grown. She has now decided to cultivate mustard and maize and leafy vegetables in complete organic methods this winter season.

Overall gains: Smt. Pushpa Mondal has benefitted personally very much. She has gained confidence that now she can feed her children with safe and healthy foods with the organic cultivation methods. She has also realized and found that there is some change in the soil condition as compared to the earlier type when she used chemical manures. She is also happy that at least she can contribute in some way to keep the environment safe and free from poisonous chemicals and free the environment from chemical pollution.



# Case Study on Narration of Paddy Nursery Techniques of district of Kalahandi Odisha

The district of Kalahandi occupies the south western portion of Odisha state and it has been in the lime light due to various anthropological and natural disasters. Recurrence of drought, epidemics, starvation deaths and mass migration has become a way of life for a large segment of population in this district. The region, therefore, has acquired a distinct place of its own in the World development map for its distress situation.

In coordination with National Skill development Corporation and Agricultural Skill Council of India, Patanjali Bio Research Institute has initiated its Patanjali Farmer Samridhi Program in Kalahandi district since last 7 months. By the end of July 2019 around 1400 farmers of Kalahandi district have been trained by 23 trainer farmers, out of which 1080 farmers have cleared the assessment successfully. The farmers were quite benefited from the technical know-how they perceived during the training programs and now 270 farmers started implementing this Dapog method of nursery raising covering around 650 acres in the current kharif season in their cultivable lands.

Farmers of Junagarh block of Kalahandi adopted the DAPOG METHOD OF NURSERY for their Kharif Paddy program instead of wet method. One such case of Shri Chandra Sekhar Acharya of Mahichala village under Junagarh block of Kalahandi who has taken up kharif program with Sona Masoori medium grain rice variety on his 10 acres of low land. Highlights of his nursery method is described hereunder;

Nursery seedlings under Dapog method are established in a layer of soil mix, arranged on a firm surface of bio-degradable polythene sheet. Seedlings are ready for planting within 14-20 days after seeding (DAS). For his 10 acres paddy transplanting he has raised nursery bed @ 16 square meter per acre. He has mixed 70% soil with 20% well decomposed FYM and 10% rice hull. Treated the paddy seeds with Pseudomonas fluorescens @ 10gm/kg during overnight soaked in water for pre-germination before sowing to mother beds. Within a couple of days (10-14 days) the seedlings will attain a height of 10-12 cm and will be ready for transplanting after 10 to 14 days of sowing regardless of duration of the rice variety. In this method the seedlings will not be pulled. The whole seedling mass with the matted roots below can simply be rolled and carried to the main field where the seedlings are easily separated and transplanted either manually or mechanically.

#### Benefits from Dapog method are:

- 1. Area required for seed mother bed is reduced from 40 to 16 square meters per acre resulting in saving 3-4 mandays (Rs.690-Rs.920) per acre of paddy cultivation.
- 2. Requirement of paddy seeds reduced from 30 kg to 20 kg thus saving Rs350 per acre.
- 3. Time in the seed bed preparation is greatly reduced to 40%.
- **4.** Pulling of seedlings will be eliminated for transplanting.
- 5. Paddy seeds will not be washed away by rain.
- **6.** More importantly, the seedlings will not suffer from root or stem injury as there will be no need to pull the seedlings during transplanting.

As compared to the traditional wet method of paddy nursery, Dapog method is adjudged as the most cost and time saving technology for the farmers. Most of the farmers who have undertaken training under PFSP are currently adopting this method of Paddy nursery due to it's various benefits.

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